Decoding the TOEFL® iBT

Advanced

LISTENING

Answers
Scripts
Explanations

Practice with Short Passages p. 16

A

Answers

1 (D) 2 (B)

| Script |

Listen to part of a conversation between a student and a professor.

W Student: Hi, Professor Watkins. I read your e-mail after my biology class ended, so I got here as quickly as I could. What do you need to chat with me about?

M Professor: Hi, Jane. Thanks for coming so quickly. I just got something in today's mail that I think you might be interested in.

W: Yeah? What is it?

M: Did you know there's going to be a conference on nanotechnology in Dallas this summer?

W: No, I had no idea.

M: Neither did I. Apparently, it's the first time this conference is going to be held, and the organizers haven't done a stellar job of letting people know about it. That's why I got a brochure for it today despite the fact that it's going to be held two months from now.

W: That's considered slow?

M: Yes, it is. In fact, it's quite problematic. You see, people need to know when a special event is going to be held at least six months in advance. That way, they can, uh, arrange their schedules and make plans to attend it. Regarding this conference, I'd totally love to go to it, but I'm scheduled to teach classes this summer, and it's right in the middle of the summer semester.

W: That's too bad.

M: It sure is. However, while I can't go, you can. You're still planning on working here in my lab this summer, aren't you?

W: That's correct. But, uh, I don't have enough money to fly to Dallas. And there's no way I could afford a hotel and everything else. I appreciate the thought, Professor Watkins, but I don't see how I could go.

M: Actually, it's pretty easy. You may not be aware of this, but the department has money set aside in the budget to help deserving students pay for trips such as this. If your application is approved, the school will cover your airfare and hotel fee and also provide you with a per diem to pay for your food and transportation costs. Oh, and it will take care of your registration fee for the conference as well.

W: That's incredible. I had no idea. How do I get one of these applications?

M: I thought you'd never ask. I've got one for you right here. Shall we fill it out together?

Answer Explanations

1 (D) About the conference in the summer, the professor says, "In fact, it's quite problematic. You see, people need to know when a special event is going to be held at least six months in advance. That way, they can, uh, arrange their schedules and make plans to attend it. Regarding this conference, I'd totally love to go to it, but I'm scheduled to teach classes this summer, and it's right in the middle of the summer semester."

2 (B) The speakers are mostly talking about a conference which will be held for the first time.

B

Answers

1 (A) 2 (B)

| Script |

Listen to part of a conversation between a student and a Chemistry Department office employee.

M1 Student: Excuse me, but I was told by the lab instructor that I need to come here to speak with someone in the office.

M2 Chemistry Department Office Employee: Sure. Does your problem have something to do with Chemistry 105?

M1: Yes, that's right. Uh . . . how did you know that?

M2: I'm sorry to say that there's a big problem concerning this class. For some reason, the Registrar's office allowed way too many students to enroll in the class. There are only supposed to be fifty slots for this class, but more than 200 students signed up for it.

M1: Okay, so, uh, what's going to happen? I mean, uh, I enrolled in the class and attended the first lecture this morning. The lecture hall was packed, but it was pretty big, so I didn't think much of it. But when I got to the lab, there wasn't any room at all. The lab instructor checked my name on a list and told me I needed to come to this office.

M2: All right . . . Why don't you give me your name, please?

M1: I'm Marcus Peterson.

M2: Okay . . . let me check . . . Ah, I found it. Hmm . . . It appears as though you were one of the last people to enroll in the course.

M1: What does that mean?

M2: It means that you'll be permitted to remain in the class, but you will not be able to take the lab option.

M1: Uh . . . But I have to take the lab. I'm a Chemistry major, so I need to take the lab for this class. Otherwise, it won't count as one of the core courses for my major.

M2: Yes, I understand. In that case, you're just going to have to take the class next semester or during summer school.

M1: Next semester? But I need to take the class now. And what if the same thing happens next semester?

M2: Actually, that's guaranteed not to happen. Anyone like you who can't take the lab option this semester will be automatically enrolled in it next semester. So you won't have to worry about any problems next semester.

M1: I guess that's better than nothing. But are you sure there's no way for me to take the lab option this semester?

M2: I regret to say this, but unless the school opens another lab class, there's absolutely nothing you can do.

Answer Explanations

1 (A) The student's problem is that the school will not let him take a lab class that he already signed up for.

2 (B) The speakers are mostly talking about a problem with a class that is in the Chemistry Department.

C

Answers

1 (B) 2 (A)

| Script |

Listen to part of a lecture in an astronomy class.

M Professor: I'd like to continue our discussion of magnetic fields by moving away from the Earth and heading to the moon. Figuratively speaking, of course. At present, the moon doesn't have a magnetic field, but there's strong evidence it had one in the past, uh, perhaps billions of years ago. Obviously, the question we astronomers have is this: What happened to that magnetic field to make it disappear . . . ?

W Student: How do we know that the moon once had a magnetic field? I mean, uh, that's not something which was discovered with a telescope, right?

M: Indeed not. We know this thanks to the moon landings. Before we landed on the moon in the late 1960s, we had no evidence that the moon had ever had a magnetic field. But some of the moon rocks the *Apollo 11* astronauts brought to the Earth with them at the completion of their mission were discovered to be magnetic. Let me tell you that that discovery came as quite a shock to NASA scientists. Since then, various theories as to why the rocks are magnetic have been proposed, but two seem, in my opinion, to be the closest to what really happened.

First, however, let me remind you about what I mentioned regarding magnetic fields a few moments ago. Remember that inside the Earth, electric currents come from the movement of fluids in the core. It's those superheated moving liquid metals, uh, iron and nickel for the most part, that comprise the outer core and give the Earth its magnetic field.

W: Does the moon also have a moving core like the Earth does?

M: Hmm . . . The evidence suggests that it doesn't have a moving liquid core any longer, but it may have had one in the past. Most celestial bodies in the solar system fall into one of two categories. They're either large and have a multilayered structure or are so small that they're merely solid objects, such as asteroids, which are basically made of rock. As for the moon . . . well, it may fit somewhere between those two types of celestial bodies. It's small but may have been large enough at its creation to have developed a simplistic, yet multilayered, structure with a moving metal core. If that's true—and numerous sophisticated computer simulations suggest that it is—then that's what created the moon's magnetic field billions of years ago. Ah, this probably happened between 4.25 and 3.56 billion years ago, which is approximately one billion years after the moon formed. Interestingly, the evidence and computer simulations both suggest that the moon's magnetic field was even stronger than the Earth's magnetic field presently is.

What about the second theory . . . ? The moon, as you surely know, is heavily cratered. The second theory posits that heavy impacts on the moon's surface from a bombardment of meteoroids caused the moon's internal

material to be stirred up. Essentially, the moon's interior became heated, which caused it to liquefy, and then it formed an electric dynamo that produced a magnetic field for a while.

The problem with both theories is that nobody knows when exactly the moon stopped producing its magnetic field. The reason why, however, is fairly certain: As the moon aged, its inner core likely cooled to the point that it was no longer a moving fluid. Instead, it became solidified and therefore stopped producing electricity, which naturally caused its magnetic field to disappear. As for the impact theory, astronomers believe that the rate of impacts grew less or stopped altogether, which enabled the inner material to cool, so the magnetic field was no longer produced.

Answer Explanations

1 (B) The professor spends most of the lecture talking about why the moon might have developed a magnetic field in the past.

2 (A) About the *Apollo 11* mission, the professor focuses on the importance of the moon rocks the astronauts brought back in stating, "But some of the moon rocks the *Apollo 11* astronauts brought to the Earth with them at the completion of their mission were discovered to be magnetic. Let me tell you that that discovery came as quite a shock to NASA scientists."

D

Answers

1 (A) 2 (B)

| Script |

Listen to part of a lecture in an art history class.

W Professor: The still life is a basic form of painting taught to most budding artists, yet it's often considered a low form of art since it's fairly simplistic and easy to do. But, in fact, for hundreds of years, it has been a popular art style for buyers. Before I get into the history of the still life and go into detail on some of the more famous paintings in the genre, I'd like to tell you what it's all about.

As you can see here on the screen . . . a still-life work of art is typically a basic, colorful painting . . . showing a simple background with various everyday objects in the foreground . . . These objects frequently have a botanical nature and may feature arrangements of fruits . . . or flowers . . . Other still lifes feature household objects like this one here . . . and this one here . . . Food, as you can see . . . is another common still-life subject. In the past, dead animals . . . such as freshly caught fish . . . or birds killed by hunters . . . were common subjects. Some still lifes from the past had religious themes . . . but this is rather rare today.

Still-life techniques vary, but there are some common themes. Bright colors are normal . . . and so are realistic depictions of the objects being painted. That means there's no Cubism or Surrealism in a still life. Most of them are set in interior locations such as kitchens . . . or sitting rooms . . . Other common objects displayed in still lifes are Chinese porcelain . . . kitchen cutlery . . . and other cooking implements . . . glasses . . . silverware . . . and other common household objects. People rarely appear in still lifes, but it's not entirely unknown. See here . . . and here . . .

Historically, the still life is one of the oldest forms of art. Still lifes have been found on the walls of the ruins of Pompeii, the ancient Roman city that was covered by volcanic ash . . . They have also been found in ancient Egyptian . . . and Greek ruins . . . In more modern times, the art form came to prominence in Northwestern Europe during the Renaissance . . . It became popular in both the Netherlands . . . and later in Italy . . . As the people of the Netherlands grew rich from trading and the other businesses they engaged in, they started demanding artwork. Still lifes were appreciated by the Dutch people because the paintings could be displayed in their domiciles to give their homes a more natural feel. The discovery of the properties of oil paints further increased the popularity of still lifes. The reason is that oil paintings have more vibrant colors and allow for greater depth and realism, all of which are hallmarks of the still-life art form.

M Student: Weren't religious-themed paintings more prominent during that time though?

W: True, but there was a gradual move away from religious works during the Renaissance. And for the most part, the religious works were painted either for churches or the powerful and wealthy families that lived during that time. For the less wealthy and, uh, those who simply wanted a bit of the natural world hanging on their walls, a still life was ideal. And even the great artists of the day such as Leonardo da Vinci tried their hand at still lifes. Nowadays, practically everyone who has ever painted a picture has attempted to make a still life.

Answer Explanations

1 (A) The professor focuses on the still life, which is a popular painting genre.

2 (B) Regarding the Renaissance, the professor mainly talks about which types of artwork became popular during that period when she notes, "True, but there was a gradual move away from religious works during the Renaissance. And for the most part, the religious works were painted either for churches or the powerful and wealthy families that lived during that time. For the less wealthy and, uh, those who simply wanted a bit of the natural world hanging on their walls, a still life was ideal. And even the great artists of the day such as Leonardo da Vinci tried their hand at still lifes."

Practice with Long Passages p. 20

A

Answers

1 (B) 2 (D) 3 (A) 4 (D)

| Script |

Listen to part of a conversation between a student and a professor.

W1 Student: Good afternoon, Professor Hamilton. That was a good class we had this morning. I learned quite a bit in it.

W2 Professor: I'm glad you enjoyed it, Karen. It's one of my favorite lectures to give each semester.

W1: So, uh, you mentioned that you wanted to see me sometime soon. This is the first break I've had since breakfast all day, so I thought I'd drop by your office right now. Do you happen to have some time to speak with me?

W2: Yes, Karen, I do. There's something I'd like to converse with you about. So, uh, why don't you have a seat right there, please?

W1: Sure, Professor.

W2: Thanks. I'm curious . . . What's your schedule like for the rest of the semester? 4 Do you have a lot of work to do?

W1: Hmm . . . I'm not particularly busy right now. I mean, uh, I'm taking five classes. **But I'm not doing a part-time job this term, so I've got a bit more time than I have had in previous semesters.**

W2: That's good to hear. So . . . Would you be interested in participating in an extracurricular activity? You don't happen to be involved in one now, do you?

W1: No, I don't. I had considered joining a couple of clubs at the start of the semester, but they didn't seem particularly interesting when I went to the first meetings. What exactly do you have in mind?

W2: Well, it's not a club, but I'm leading several students who are going to give a dance performance this semester. Unfortunately, a couple of individuals had to drop out recently. One of them got injured while the other had, uh, some personal issues. We need a couple of replacement dancers, or else we won't be able to put on the performance. I know you enjoy dancing, so I thought I'd ask you to join our dance troupe.

W1: That sounds interesting. What kind of dancing is it?

W2: It's a combination of modern and classical.

W1: Oh . . . I don't really know much about classical dance. I probably wouldn't do that well, so are you sure you want me?

W2: Don't worry about your lack of experience. First, um, this isn't a professional group. Anyway, I can teach you the steps, and I think you'll find that it's both a lot of fun and great exercise. The other students are very nice. In fact, um, you probably already know a couple of them.

W1: You know, uh, I think I might. Is Amy Campbell in the troupe?

W2: Yes, she is. So, uh, what do you think?

W1: Okay. I'll give it a shot. When is the next practice session?

W2: It's tomorrow at 6:30 in the evening in room 103 in Robertson Hall. Thanks a lot, Karen. I'm looking forward to seeing you there.

W1: And I'm looking forward to attending. This sounds like it could be fun.

Answer Explanations

1 (B) The speakers are mostly talking about the dance troupe that the professor would like the student to be a part of.

2 (D) The professor tells the student, "the other had, uh, some personal issues. We need a couple of replacement dancers, or else we won't be able to put on the performance."

3 (A) The student indicates that she is eager to join the group when she says, "And I'm looking forward to attending. This sounds like it could be fun."

4 (D) The student implies that she has worked part time in other semesters when she mentions that since she is not doing a part-time job this term, she has "got a bit more time than I have had in previous semesters."

Dictation

1 There's something I'd like to converse with you about.

2 Would you be interested in participating in an extracurricular activity?

3 We need a couple of replacement dancers, or else we won't be able to put on the performance.

B

Answers

1 (B) 2 Fact: 1, 2, 4 Not a Fact: 3
3 (D) 4 (D)

| Script |

Listen to part of a lecture in a history class.

M Professor: The Vikings were among history's greatest seafarers, yet much of what the majority of people know about them comes from portrayals in movies and on television programs, which often show them at their worst, uh, invading lands and making war on people. In fact, there are numerous misconceptions about the Vikings in our modern culture. For instance, hmm . . . They're typically regarded solely as raiders who pillaged, looted, and caused other types of mayhem. 🎧4 The Vikings are shown as wild, hairy, unshaven, and unclean men. They're pictured as a united group of people under a single leader. And, uh, finally, they're regularly shown only sailing their boats near coastlines. **Well, uh, I'd like to disabuse you of all these notions right now.**

First, let me talk about their reputation for violence and wildness. Yes, it's true that the Vikings attacked other lands, stole, and killed. But they didn't do these activities all the time; uh, they only did them when opportunities presented themselves. For the most part, the Vikings were farmers, fishermen, and traders, just like most other Europeans were. And how about the way they're commonly portrayed on TV and in movies—you know, as hairy, unclean beasts . . . ? Well, that's far from the truth. The Vikings were among the few Europeans of their time to bathe regularly. At least once a week, almost every Viking enjoyed a hot bath. Compare that to most Europeans, who bathed once a year, um, if ever.

Now, uh, as to the notion that the Vikings were a single people, that's false as well. The word "Viking" itself was used by the Norse people to describe their seafarers who went on long voyages, so it was not a word they employed to describe themselves as a whole. In addition, the Vikings consisted of many clans of people scattered throughout Scandinavia. These clans resided mostly near the coast, and their lives were centered on small villages. In each region, they formed strong clans based mainly on family ties and allegiance to a strong leader, their chieftain. The clans had complex relationships with one another. They were at peace sometimes but went to war on other occasions. While large groups of Vikings might assemble to go to war or to go on long sea voyages, in no sense should we ever consider the Vikings to have been united in something resembling a modern nation-state.

W Student: But didn't the Vikings form large armies to invade places such as England and, uh, parts of France?

M: Well . . . they most assuredly did attack, invade, and establish permanent colonies in other lands, but they never had anything remotely resembling large armies, especially by modern standards. The Vikings mostly used, uh, I guess we'd call them raiding parties. They consisted of as little as a few dozen men to maybe several hundred or a few thousand men at the most. In the majority of instances, they raided for a few days and then departed unless they were interested in founding colonies in some lands.

And that brings us to the last myth about them, which concerns their seafaring abilities. The Vikings were without a doubt the best seafarers of the Middle Ages. They had excellent longships and knew about latitude, which meant they could sail east or west in a straight line. Using their navigational abilities, they spread out across the Atlantic Ocean. They discovered Iceland and Greenland and colonized both places. The colony in Greenland eventually failed, but the one in Iceland didn't, and the people of Iceland today are the descendants of those Viking seafarers. The Vikings also got to North America and set up a small colony there, but it failed after a few years. In Europe, the Vikings sailed as far south as Sicily in the Mediterranean Sea, and they even sent trading ships up the great rivers of Russia, where they eventually settled as well.

Answer Explanations

1 (B) The professor focuses on discussing some misconceptions that people have about the Vikings in modern times.

2 Fact: 1, 2, 4 Not a Fact: 3
About the Vikings, the professor remarks, "The Vikings were among the few Europeans of their time to bathe regularly. At least once a week, almost every Viking enjoyed a hot bath. Compare that to most Europeans, who bathed once a year, um, if ever." He adds, "While large groups of Vikings might assemble to go to war or to go on long sea voyages, in no sense should we ever consider the Vikings to have been united in something resembling a modern nation-state." He also comments, "Using their navigational abilities, they spread out across the Atlantic Ocean," and, "In Europe, the Vikings sailed as far south as Sicily in the Mediterranean Sea." However, Viking armies were not large with tens of thousands of men. Instead, he points out, "They consisted of as little as a few dozen men to maybe several hundred or a few thousand men at the most."

3 (D) The professor organizes his lecture by talking about specific aspects of the Vikings one by one.

4 (D) When the professor tells the class, "I'd like to disabuse you of all these notions right now," he is saying that he is going to correct the students so that they no longer have any misconceptions about the Vikings.

Dictation

1 In fact, there are numerous misconceptions about the Vikings in our modern culture.

2 Well, that's far from the truth.

3 Now, uh, as to the notion that the Vikings were a single people, that's false as well.

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Answers

1 (C) 2 (A) 3 Fact: 2, 4 Not a Fact: 1, 3
4 (B) 5 (D) 6 (B) 7 (A) 8 (B)
9 1, 4 10 (B) 11 (C) 12 (B)
13 Fact: 1, 3 Not a Fact: 2, 4
14 (D) 15 (A) 16 (B) 17 (D)

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and a café manager.

W Student: Hi. The cashier over there told me that you're the manager of this place. Is that correct?

M Café Manager: Yes, that's right. I'm Bryan Caldwell. What can I do for you?

W: My name is Julie Summers, and I'm here because I've got a request I'd like to make. You know that midterm exams are coming up, right?

M: Yes, I'm aware of that.

W: Well, uh, it would be great if you could extend the opening hours of this café during the exam period. I mean, uh, you close at ten every night, but it would be awesome if you could remain open until midnight, uh, or maybe even later than that.

M: Why would you like us to stay open later during the exam period? What time does the library close?

W: The library stays open until one AM, but, uh, in my opinion, this is the best place on campus to study. I mean, uh, there simply isn't any place better to be when I'm preparing for an exam.

M: Seriously? What makes you say that?

W: Well, uh, there are several reasons. To begin with, take a look at the chairs here.

M: The chairs?

W: Yes, the chairs. The chairs are so comfortable. They're so much nicer than the hard chairs the school library has. Whenever I come here to study, I can curl up with a good book for a couple of hours. I have a need to be comfortable when I study, and the chairs here make me feel great.

M: Yeah, I've noticed you here at least three times a week during the past month. And when you come, you seem to stay here for a couple of hours.

W: Oh, you've noticed me. That's cool. I try to come here every chance I get. Oh, yeah, and another reason I like this place has to do with the food. For starters, I can eat and drink here, but I can't do that at the library. I simply must have something to snack on while I'm studying.

M: I can understand that. I used to do the same thing when I was a student studying for tests in the past.

W: In addition, this place doesn't sell junk food like the café at the campus center does. Instead, everything here is healthy and nutritious.

M: Thanks for saying that. I worked hard to improve the quality of the food that's served here, and I'm pleased someone has finally realized that.

W: Wow, so you're the person responsible? Thanks a lot. So, uh, anyway, what do you think of my suggestion? Would it be possible to extend the hours here for the next couple of weeks?

M: You know, uh, I personally love your idea, and I appreciate the pleasant things you said about the café, but I can't accommodate your request.

W: Huh? Why not?

M: It's simply not practical from a business standpoint. Remaining open for more hours would require me to pay my employees more money. The school also insists that students working late at night receive higher wages, so I'd be paying much more than minimum wage.

W: Oh . . . I wasn't aware of that.

M: Yeah, and this place barely makes a profit. If we stayed open later, we'd practically be guaranteed to lose money. Unless you can bring in a whole bunch of new customers every night, then our hours simply aren't going to expand.

Answer Explanations

1 Gist-Content Question

Ⓒ The speakers are mostly talking about the request that the student makes that the man keep the café open longer.

2 Connecting Content Question

Ⓐ About the café, the student says, "I mean, uh, you close at ten every night." And she also says, "The library stays open until one AM."

3 Detail Question

Fact: 2, 4 Not a Fact: 1, 3

About the café, the student says, "The chairs are so comfortable. They're so much nicer than the hard chairs the school library has." She also notes, "Everything here is healthy and nutritious." However, the café closes at ten, not midnight, and it is not located in the university's student center.

4 Understanding Function Question

Ⓑ In rejecting the student's request, the man comments, "It's simply not practical from a business standpoint. Remaining open for more hours would require me to pay my employees more money. The school also insists that students working late at night receive higher wages, so I'd be paying much more than minimum wage."

5 Making Inferences Question

Ⓓ The man remarks, "Unless you can bring in a whole bunch of new customers every night, then our hours simply aren't going to expand." In saying that, he implies that the café could stay open later if more people visited it.

Lecture #1 [6–11]

Script

Listen to part of a lecture in a zoology class.

W Professor: Okay, uh, that's all I want to say about the hermit crab. Now, uh, I believe we've got a few more minutes until we're done, so let me cover one more animal before we finish up. We need to discuss one of the more unique species of marine life . . . the horseshoe crab. It's among the world's oldest living species as it dates back to roughly 450 million years ago, making it older than the dinosaurs. There are four species of horseshoe crab, three of which live in Asia and one in North America.

Here's a picture of the upper side of the horseshoe crab . . . You can see that it has a hard outer exoskeleton and a long tail with, uh, with some spiny protrusions on its shell. Here's the underside . . . Notice there are ten legs visible. In the center of the legs here . . . is its mouth. The crab uses its legs to walk, to swim, and to pull food toward its mouth. Although its long tail appears dangerous, it isn't. The tail's main function is to help flip the crab over if it winds up on its back. Now, uh, look at its eyes here . . . The horseshoe crab has nine eyes. Some are in pairs . . . and some are by themselves . . . They're used to let it see straight ahead and also to provide it with vision around its body to warn it of approaching danger. Zoologists believe some eyes let the crab see moonlight, which is important for mating.

This picture here . . . shows a male and a female side by side. The female is about one third bigger than the male. A female horseshoe crab grows to be around forty-five centimeters long while a male can be about thirty-five centimeters.

M1 Student: 11 They don't really look like crabs.

W: **You can say that again.** However, they're similar to other species of crustaceans, so that's why they're classified as crabs. But, in actuality, the horseshoe crab has many similarities to arachnids, the family of animals which spiders belong to.

Moving on . . . What about the life span and mating habits of the horseshoe crab . . . ? It lives for around twenty years but doesn't begin mating until it's approximately ten. Mating begins in late spring and early summer during periods when there are new and full moons. Mating takes place on beaches at night. First, the males go ashore and then wait for the females. When the females reach the shore, they release pheromones that attract the males. The pheromones are chemical signals indicating that the females are ready to mate. After mating, each female lays tens of thousands of fertilized eggs. The female crabs dig small holes in the sand and deposit their eggs in them. That, by the way, is the only role parents play in the lives of their progeny.

The vast majority of the eggs never hatch but instead become food for birds and reptiles. In addition, the eggs that do hatch into small larvae often become food, and those crabs which manage to reach the water are often consumed by fish. But don't worry since hundreds of thousands of horseshoe crabs mate each year, and millions of eggs are laid, so many survive. Interestingly, horseshoe crab eggs and larvae are such important food sources for so many animals that marine biologists consider the horseshoe crab a keystone species. In other words, if it were suddenly to vanish, its disappearance would have a drastic effect on many other species.

M2 Student: I heard it's important in the medical industry.

W: That's correct. It's important due to its unique blood. While humans and most other animals rely on hemoglobin to transport oxygen through their bodies, the horseshoe crab has hemocyanin, which is like copper. It makes the crab's blood blue in color rather than red. Its blood also has special antibody properties. The crab doesn't have white blood cells to fight infections like we do but instead has amebocytes, which are used to make a substance called limulus amebocyte lysate. This term is usually shortened to LAL, which I'll use. LAL has special properties, among them being that it coagulates in the presence of bacteria. This makes it the perfect material to use for a test that can check for bacteria. Since the 1970s, LAL tests have been used in hospitals to test for harmful bacteria on medical instruments. The test only works on instruments that have come in contact with blood or other human bodily fluids, so it's useful because it enables medical instruments to be employed repeatedly on different patients without doctors having to worry about spreading an infection from one patient to another. Unfortunately, breeding and raising horseshoe crabs in captivity is rather difficult, so the blood needed for LAL tests is often taken from crabs in the wild. The process doesn't usually kill the crabs as people merely draw blood from them and then release them back into the water.

Okay, I think that's all we have time for. Please don't forget to submit your term papers next Monday before class starts.

Answer Explanations

6 Gist-Content Question

Ⓑ The professor spends most of her time describing the characteristics of the horseshoe crab.

7 Understanding Organization Question

Ⓐ While talking about the body of the horseshoe crab, the professor states, "Here's a picture of the upper side of the horseshoe crab." She then points out various features of the crab while she shows pictures to the class.

8 Detail Question

Ⓑ The professor declares, "Interestingly, horseshoe crab eggs and larvae are such important food sources for so many animals that marine biologists consider the horseshoe crab a keystone species. In other words, if it were suddenly to vanish, its disappearance would have a drastic effect on many other species."

9 Detail Question

1, 4 The professor states, "It makes the crab's blood blue in color rather than red." Then, she adds, "The crab doesn't have white blood cells to fight infections like we do but instead has amebocytes, which are used to make a substance called limulus amebocyte lysate. This term is usually shortened to LAL, which I'll use. LAL has special properties, among them being that it coagulates in the presence of bacteria. This makes it the perfect material to use for a test that can check for bacteria."

10 Making Inferences Question

Ⓑ At the beginning of the lecture, the professor mentions, "Now, uh, I believe we've got a few more minutes until we're done, so let me cover one more animal before we finish up." And at the end of the talk, the professor says, "Okay, I think that's all we have time for. Please don't forget to submit your term papers next Monday before class starts." So she will probably dismiss the students for the day next.

11 Understanding Function Question

Ⓒ When the professor responds, "You can say that again," to the student's comment that the horseshoe crabs do not look like crabs, she is indicating that she agrees with what the student just said.

Lecture #2 [12–17]

Script

Listen to part of a lecture in an anthropology class.

M Professor: One of the more unique aspects of North American Native culture is the ceremony called the potlatch. It was once common among the tribes that resided in the Pacific Northwest areas in both the United States and Canada. Each tribe had its own variations on the potlatch ceremony, but I'm merely going to give you the basics on what it was all about. Please feel free to do some research on your own if you're interested in how

individual tribes conducted them though. You'll find what you learn to be quite fascinating.

The potlatch was, hmm . . . well, it was a combination of many things. To begin with, it was a ceremony usually held to celebrate events such as births, marriages, and funerals. It involved feasting, gift giving, dancing, singing, and sometimes even theatrical performances. It could last for a single day or for several, and it could involve only one tribe or many. The ceremony was often utilized as an occasion for a tribal leader to express his strength, uh, that is, to demonstrate his superiority among his people and also to show other tribes how powerful or great he was. Another function of the potlatch was to settle disputes within a tribe or between tribes. It served, you see, as a meeting place for people to air their disputes and for the chief or tribal elders to settle them. As for what kinds of disputes between tribes were commonly settled, they tended to involve fishing and hunting rights in different lands.

The main characteristic of the potlatch was the chief's giving away of gifts to his people and others. The nature of these gifts varied over time. In pre-Columbian times, the gifts were predominantly food, wooden carvings, canoes, copper, and slaves. Yes, slavery was actually quite common for Native American tribes. The slaves were often people from other tribes who had been captured during wars. Among his own people, a chief could also bestow titles, thereby giving ranks to people in the tribe, which would increase their prestige among their own people. After the arrival of Europeans in North America, new gift items, including firearms, textiles, and metal products, were frequently given at potlatches.

17 Oftentimes, when the chief of a tribe reached old age and had collected an impressive amount of wealth, he would hold a potlatch and give most of it away to show his generosity to his people as he entered the final years of his life. **And, um, in what may seem a bit peculiar to us, the chief would destroy some of his possessions.** This was almost always done by burning them in a bonfire. If you're curious why, the reason was that the chief wanted to show his people that he was so superior that material possessions meant, uh, they meant nothing to him. It was also intended to instruct his people that they shouldn't become too attached to material things since they served no purpose after death. During a potlatch, something of a contest between two tribal chiefs tended to occur. The chief who invited the other tribe would give away gifts or destroy them and then challenge the other chief to do the same. If the invited chief refused to give away or destroy an equal amount of items as the host, he and his people would lose face and be regarded as less powerful.

W Student: I'm sorry, but I don't get it. How would doing that prove who is more powerful?

M: It has to do with the psyche of the native people. Don't try to explain their actions by ascribing our values to them. Sure, it seems, uh, odd to us for someone to give away or destroy his wealth. But to them, prestige was all about being the most generous with gifts at a potlatch. It was a point of pride to be the most generous. Some tribes would take years to amass great amounts of wealth solely to give it away or destroy it eventually. Interestingly enough, some anthropologists believe one reason for the endemic warfare between tribes was the need to capture slaves in order to give them away at a potlatch.

When Americans and Canadians arrived in the Pacific Northwest in strength in the nineteenth century, they sadly regarded this beautiful event as primitive. To the natives, it was a normal part of their lives, but it was a cause of trouble to the American and Canadian governments. In their minds, in addition to causing warfare and slavery, the potlatch ceremony itself was regarded as wasteful. Basically, the giving away or destroying of gifts was contrary to their sense of property ownership and wealth accumulation. It was also perceived as the cause of jealousy and resentment as one or more tribes were always deemed more powerful than the others. The governments further believed that the potlatch would prevent natives from assimilating into the new order. To settle this problem, the Canadian government banned the potlatch ceremony in 1884. Resistance and changing attitudes resulted in the ban being lifted in 1951, so the potlatch fortunately remains a part of tribal life today. However, today, it's mostly a feast rather than an elaborate gift-giving and prestige ceremony.

Answer Explanations

12 Gist-Content Question

Ⓑ The professor focuses on the role of gifts in the potlatch while she discusses it.

13 Detail Question

Fact: 1, 3 Not a Fact: 2, 4

About the potlatch, the professor comments, "To begin with, it was a ceremony usually held to celebrate events such as births, marriages, and funerals." He also says, "Another function of the potlatch was to settle disputes within a tribe or between tribes. It served, you see, as a meeting place for people to air their disputes and for the chief or tribal elders to settle them. As for what kinds of disputes between tribes were commonly settled, they tended to involve fishing and hunting rights in different lands." However, he also states, "It could last for a single day or for several, and it could involve only one tribe or many," and he adds that only the chief gave presents.

14 Connecting Content Question

Ⓓ The professor says, "The nature of these gifts varied over time. In pre-Columbian times, the gifts were predominantly food, wooden carvings, canoes, copper, and slaves. Yes, slavery was actually quite common for Native American tribes. The slaves were often people from other tribes who had been captured during wars. Among his own people, a chief could also bestow titles, thereby giving ranks to people in the tribe, which would increase their prestige among their own people. After the arrival of Europeans in North America, new gift items, including firearms, textiles, and metal products, were frequently given at potlatches." So he compares the gifts that were given away during potlatches.

15 Detail Question

Ⓐ The professor notes, "Interestingly enough, some anthropologists believe one reason for the endemic warfare between tribes was the need to capture slaves in order to give them away at a potlatch."

16 Understanding Attitude Question

Ⓑ The professor states, "When Americans and Canadians arrived in the Pacific Northwest in strength in the nineteenth century, they sadly regarded this beautiful event as primitive."

17 Understanding Function Question

Ⓓ In stating, "In what may seem a bit peculiar to us, the chief would destroy some of his possessions," the professor implies that most modern-day people do not destroy the things that they own.

Practice with Short Passages p. 34

A

Answers

1 Ⓐ 2 Ⓒ

| Script |

Listen to part of a conversation between a student and a student center employee.

M1 Student: Pardon me, but I wonder if you can help me out. I'm having a problem with something.

M2 Student Center Employee: I'll do my best. What seems to be the problem?

M1: Well, uh, I was trying to get into the library, but the person at the front door wouldn't let me inside. He told me to turn around and go away.

M2: I'm very sorry, but the library is solely reserved for the usage of students, faculty, staff, and alumni. Since you're not a student here, then you can't get in. Why don't you use the public library downtown? I understand that it has a nice collection of books.

M1: Er . . . Actually, I am a student here.

M2: Huh? Then why didn't the person permit you to enter? Were you eating food or talking on your phone loudly as you were going in? You know you're not supposed to do either of those two things, don't you?

M1: No, uh, it wasn't that. He wouldn't let me in because I didn't have my student ID. What's up with that?

M2: Ah . . . freshman?

M1: Yes.

M2: Ever since last year, the school has made it obligatory for students to carry their IDs at all times. You can't get into most of the buildings here on campus without showing an ID card.

M1: Why do they require that? That seems kind of odd.

M2: There were some, uh, issues with nonstudents on campus during the spring semester. Some people were coming to campus, pretending to be students, and causing all sorts of problems. That's why the dean instituted the rule. It's sort of annoying, but it did solve the problems. Um, didn't they tell you this at orientation?

M1: Um . . . I sort of missed my orientation session. I just arrived on campus yesterday.

M2: Okay, I see. Well, make sure you have your ID card whenever you leave your dorm. Otherwise, you won't be able to get inside the library and most other buildings. All you need to do is show it to the person at the front door of the building you're entering.

M1: Great. Thanks for letting me know. I appreciate it.

Answer Explanations

1 Ⓐ The student goes to the student center to ask why the person at the library would not permit him to enter.

2 Ⓒ In response to the student's inquiry about why ID cards are needed to get into buildings on campus, the employee tells the student, "There were some, uh, issues with nonstudents on campus during the spring semester. Some people were coming to campus, pretending to be students, and causing all sorts of problems. That's why the dean instituted the rule. It's sort of annoying, but it did solve the problems."

B

Answers

1 Ⓒ 2 Ⓓ

| Script |

Listen to part of a conversation between a student and a professor.

M Student: Good morning, Professor Clay. I'm here for our meeting.

W Professor: Good morning, Kevin. Thanks for dropping by. Um, Kevin, you indicated last week that you would be interested in doing an independent research project next semester. Are you still considering that?

M: Yes, ma'am, I am.

W: Do you mind if I ask you why you'd like to do that?

M: Not at all. The answer is pretty simple. Next year is going to be my senior year, so I've been doing some thinking about my future. I pretty much have two options available after I graduate: I can find a job, or I can attend graduate school.

W: That's true. Do you know which of the two you're probably going to do?

M: Not yet. And that's why I'd like to do an independent research project next fall. You see, uh, I'm not really sure if graduate school is the place for me. First of all, it's rather expensive unless I manage to get a TA or an RA. Second of all, I'm not sure if I'll enjoy staying at school and doing research primarily on my own for a couple of years.

W: So that's why you want to do the research project next semester, right?

M: Precisely. I figure that I'll learn a great deal about, uh, my abilities as a researcher as well as how much I actually enjoy doing it. So, uh, is that a good reason?

W: It's a perfect reason, Kevin. College is the ideal place to find out about yourself and your interests and abilities. Personally, I think you'd make a good researcher. I guess we're going to find out soon, won't we?

M: Yes, ma'am. I guess so.

W: So do you know what you'd like to do research on?

M: Um . . . Well, since my focus is on marine biology, I think it should be something connected with it. But, uh, other than that, to be honest, I haven't given it very much thought.

W: That's fine. Most students need a bit of guidance. Here . . . This is a sheet with some possible research topics that I prepared in case any students want to do research. Do any of these strike you as interesting?

M: Hmm . . . Hold on a moment and let me read everything, please.

Answer Explanations

1 Ⓒ The student visits the professor to talk about doing an independent research project during his senior year.

2 Ⓓ The student says, "Next year is going to be my senior year, so I've been doing some thinking about my future. I pretty much have two options available after I graduate: I can find a job, or I can attend graduate school." When the professor asks if he knows which choice he will make, he responds that he does not know yet.

C

Answers

1 Ⓑ 2 Ⓑ

| Script |

Listen to part of a conversation between a student and a dining services employee.

W Student: Excuse me, but could I speak with you about something, please?

M Dining Services Employee: Sure. What can I help you with?

W: If you don't mind, I'd like to talk about my meal plan.

M: No problem. Do you want to purchase one?

W: No, sir. Instead, I'd like to reduce the one I currently have. You see, um, before the semester started, I signed up for the meal plan that permits me to eat three meals a day at any of the school's dining halls. However, I rarely even eat in the dining halls twice a day, so I'm pretty much wasting my money.

M: Yes, that would seem to be the case. May I ask why you don't eat here that often? Is the quality or taste of the food not to your liking?

W: Oh, no. I was quite surprised when I arrived here and found that the food in the dining halls is mostly good. I love eating here, but . . .

M: But what?

W: Well, I'm not much of a morning person, and I don't have any classes that start before eleven, so I haven't had breakfast a single time this semester.

M: What about lunch?

W: Hmm . . . I'd say I only eat lunch in the dining halls three or four times a week. The reason is that I don't always have enough time in between classes to get to the dining hall, so I often wind up simply buying a sandwich at the café in the campus center.

M: Okay, it sounds like you definitely have a meal plan that's too much for you.

W: So, uh, how do I reduce it?

M: It's a simple process. Just give me your student ID, and I can call up your information on the computer. It sounds like you need either the ten-meal-a-week plan or the fourteen-meal-a-week plan. Which of those would you prefer?

W: I think I'll go with the former. Nine or ten meals a week is about all I have time for.

Answer Explanations

1 Ⓑ The student visits the office to make a change in the meal plan that she has.

2 Ⓑ The student tells the man about her eating habits in order to point out why she does not always have her meals in the dining halls.

D

Answers

1 C 2 A

| Script |

Listen to part of a conversation between a student and a professor.

W Student: Hi, Professor Vinson. I got your message that you wanted to see me.

M Professor: Hi, Allison. Thanks for coming so quickly. Did you have a good vacation?

W: It was all right. I visited my parents and stayed with them the entire time. So, uh, what's going on?

M: You know, I had my first class of the semester this morning, and I was extremely surprised not to see you there. I remember you telling me last December that you intended to take my course on mercantilism. Did you decide not to sign up for it?

W: Oh, uh, yeah. I was planning to visit you soon to talk about that. I tried signing up for the class, but the person at the Registrar's office informed me that it's full. She said I couldn't get into your class unless someone happened to drop it. I couldn't believe that happened.

M: I guess my classes suddenly got popular during the last couple of weeks since my latest book came out.

W: Oh, right. Congratulations on making all the bestseller lists. I haven't read your book yet, but I'm planning to as soon as I have some free time. I guess everything makes sense, doesn't it? Now that most students on campus know about you, they want to take your classes this semester.

M: Yeah, that's what it seems like.

W: So, uh, is there any way I can get into your class? Has anyone dropped it?

M: Nobody has done that, but it's still possible for you to enroll in the class. Even though the class limit is twenty-five students, I'm permitted to allow a couple of other students to take the course if I want. Therefore, if you're still interested in learning about mercantilism, I can sign a form for you that will permit you to sign up for it.

W: Really? You would do that for me?

M: Sure. I know you're interested in the topic, and you're a good student as well, so it's no problem at all.

W: Thanks so much. What do I need to do?

M: Go back to the Registrar's office and ask someone there for a copy of form R45-1. Bring it back here, and I'll fill everything out for you.

Answer Explanations

1 C The professor says, "You know, I had my first class of the semester this morning, and I was extremely surprised not to see you there. I remember you telling me last December that you intended to take my course on mercantilism. Did you decide not to sign up for it?" So he wants to know why the student is not taking his class.

2 A The student tells the professor, "I was planning to visit you soon to talk about that. I tried signing up for the class, but the person at the Registrar's office informed me that it's full. She said I couldn't get into your class unless someone happened to drop it."

Practice with Long Passages p. 38

A

Answers

1 A 2 C 3 B, D 4 C

| Script |

Listen to part of a conversation between a student and a professor.

M1 Student: Professor Gordon, um, you didn't hand back my exam in class today. Um . . . You didn't lose it, did you?

M2 Professor: Ah, come in, Randall, and have a seat. I'd like to have a word with you.

M1: Uh, sure. Okay.

M2: I didn't give you back your exam because, well . . . I didn't want you to get embarrassed in front of your friends.

M1: Uh-oh . . . That doesn't sound good.

M2: I'm afraid not. Here's your exam . . . As you can see, you didn't do very well on it.

M1: Ouch. You're right. I got a sixty-eight. Wow . . . I don't think I've gotten a score this low since, uh . . . maybe since elementary school.

M2: It happens to the best of us, Randall. Now, um, I wonder if you could tell me about your study habits. This is the third exam we've had this semester, and your grades have gone steadily downhill since the first one. Let's see . . . You got a ninety-four on the first one, an eighty-two on the second one, and now a sixty-eight on this exam. That downward trend does not indicate anything positive about your performance on our upcoming final exam.

M1: You can say that again. Well, uh, as for my study habits, I mostly just read everything that we covered in the textbook and then go over my notes several times to make sure I know everything. I guess I study for about two days prior to each exam.

M2: 4 How many hours per day would you say that you study before an exam?

M1: Easily two hours in my dorm room each day. That's all I really need to learn the material.

M2: **On the contrary, your grades indicate to me that you need more than two hours of studying each day to learn the material.** I recommend that you do one of the following. First, you could simply study more when we have a test. And please don't study in your dorm room. I know students prefer doing that, but a dorm room isn't very conducive to effective studying. The library would be a much better place to go. The other option would be to join a study group.

M1: A study group? I wasn't aware that this class had a study group.

M2: There are several. I mentioned the study groups on the first day of class. Virtually every student in the class, hmm . . . I'd say about ninety percent of them . . . has joined one of the study groups, each of which is led by a graduate student. You might find that joining a study group will enable you to learn the material better, so you can therefore improve your grade.

M1: Yes, that sounds good. Uh, what do I have to do?

M2: Take this . . . There's a group meeting tonight. That sheet has the information about where and when it will be. Go there and see if it's helpful.

M1: I will. Thanks a lot, sir.

Answer Explanations

1 A At the start of the conversation, the student remarks, "Professor Gordon, um, you didn't hand back my exam in class today. Um . . . You didn't lose it, did you?"

2 C The professor comments, "This is the third exam we've had this semester, and your grades have gone steadily downhill since the first one. Let's see . . . You got a ninety-four on the first one, an eighty-two on the second one, and now a sixty-eight on this exam. That downward trend does not indicate anything positive about your performance on our upcoming final exam." In saying that, the professor implies that the student will not do well on the final exam.

3 B, D The professor advises the student, "First, you could simply study more when we have a test. And please don't study in your dorm room. I know students prefer doing that, but a dorm room isn't very conducive to effective studying. The library would be a much better place to go. The other option would be to join a study group."

4 C When the professor begins by saying, "On the contrary," he is indicating that he disagrees with what the student told him.

Dictation

1 I didn't want you to get embarrassed in front of your friends.

2 I wonder if you could tell me about your study habits.

3 I recommend that you do one of the following.

B

Answers

1 C 2 A 3 A, B 4 C

| Script |

Listen to part of a conversation between a student and a study abroad office employee.

W1 Study Abroad Office Employee: Good afternoon and welcome to the study abroad office. How may I be of service to you?

W2 Student: Hello. I just returned home from a semester abroad in Greece.

W1: Greece? You must have had a great time there. How did you enjoy it?

W2: Oh, uh, it was amazing. I'm majoring in Archaeology, so I had the opportunity to explore ancient ruins and dig sites virtually every weekend. I must say I had the time of my life there.

W1: That's good to know. It's always encouraging whenever I hear that a student had a positive experience while traveling abroad. That doesn't always happen, you know.

W2: It doesn't?

W1: 4 Not at all. Some students only manage to stay abroad for a couple of weeks before they come back home. Others have negative experiences for various reasons, such as, uh, they don't speak the language well enough, so they

get frustrated, or they're not outgoing enough to head out and explore their new environment.

W2: **That's a real shame.** I would have hated to waste my time in Greece like that.

W1: I'm glad to hear you didn't. Anyway, uh, I think we got a bit sidetracked there. You're obviously not here to get information about studying abroad, so what is it that I can do to help you with today?

W2: I'm having a problem getting my grades from my school in Greece transferred here, and I'm not sure what to do. One of my friends mentioned that she had the same problem a year ago and that someone from this office was able to assist her, so I thought I should drop by.

W1: Ah, sure. We get problems like that sometimes. Now, uh, I'm curious . . . Did you attend a university in Greece that is affiliated with our school?

W2: No, I didn't. Oh, no, is that a problem?

W1: Not really. If you had gone to a school we have a relationship with, then all of your grades would automatically be accepted here. Since you didn't do that, here's what you need to do.

W2: Yes?

W1: You need to get in touch with the school in Greece and ask for one of its course catalogs. Then, you have to find the description of each course you took there and match it with a similar class that's taught here.

W2: Oh, that sounds easy.

W1: That's true, but here comes the hard part. You have to find the professor who teaches the corresponding course here and have him or her agree that the class in Greece is similar enough for you to receive credit. Uh, how many classes did you take there?

W2: Five.

W1: Okay. Here are five of the forms. Please get each professor to fill out a form for the proper class. I know this sounds a bit hard, but let me assure you that there are almost never any problems. Yes, it's a time-consuming process, but I'm positive you'll get credit for every class you took.

Answer Explanations

1 Ⓒ The student tells the employee, "I'm having a problem getting my grades from my school in Greece transferred here, and I'm not sure what to do."

2 Ⓐ The student says, "One of my friends mentioned that she had the same problem a year ago and that someone from this office was able to assist her, so I thought I should drop by."

3 Ⓐ, Ⓑ First, the employee states, "You need to get in touch with the school in Greece and ask for one of its course catalogs. Then, you have to find the description of each course you took there and match it with a similar class that's taught here." Then, she adds, "You have to find the professor who teaches the corresponding course here and have him or her agree that the class in Greece is similar enough for you to receive credit."

4 Ⓒ When the student says, "That's a real shame," she means that it is unfortunate that some of the students who study abroad have bad times there.

Dictation

1 I would have hated to waste my time in Greece like that.

2 I'm having a problem getting my grades from my school in Greece transferred here, and I'm not sure what to do.

3 That's true, but here comes the hard part.

iBT Practice Test p. 42

Answers

1 Ⓑ	2 Ⓒ	3 Ⓓ	4 Ⓐ	5 Ⓐ
6 Ⓒ	7 Ⓐ	8 Ⓑ	9 Cause: 1	
Effect: 2, 3, 4		10 Ⓑ	11 Ⓒ	12 Ⓑ
13 Ⓑ	14 2, 3	15 Ⓓ	16 Ⓓ	17 Ⓐ

Conversation [1–5]

Script

Listen to part of a conversation between a student and a professor.

W Student: Hi, Professor Thompson. I'm pleased to see you're in your office right now.

M Professor: Good afternoon, Theresa. How are you doing today?

W: I'm all right. I have to visit the local healthcare facility in a few minutes so that I can do my volunteer work for our class there.

M: Are you enjoying the experience?

W: Definitely. I'd never gotten the chance to work closely with people with mental health issues until this semester. You know, uh, I was pretty apprehensive at first, but I'm starting to get used to it. I'm also glad we're required to do the volunteer work. To be honest, um, I thought it was a bit unfair to force us to do it when I first heard about the requirement, but now I'm happy I've got this opportunity.

M: I'm pleased you feel that way. But your class may be the last one that has the opportunity to do this work as the head of the Sociology Department is considering getting rid of the requirement that students in our department do volunteer work to graduate.

W: Oh, it would be terrible if he did that. It's such a valuable experience.

M: I agree, but there's not much I can do about it because I'm just a junior member of the faculty.

W: Well, maybe he'll change his mind.

M: Let's hope so.

W: Anyway, uh, I didn't come here simply to chat with you about the volunteer work. I have a minor request I'd like to make of you.

M: Of course. What can I do for you?

W: I've decided that I'd like to get a master's degree in Sociology, so I'm going to be applying to several graduate schools. As I'm sure you know, I have to submit at least two letters of recommendation to each school I apply to. And, um, I'd like for you to write one of the letters if you don't mind.

M: I most definitely don't mind. Just give me the list of schools you're applying to, and I'll write letters for them.

W: Great. Thanks so much.

M: What sort of information would you like me to focus upon in the letters?

W: Hmm . . . I'd appreciate it if you could write about the work I have done both in and out of the classroom. That will let schools know I'm not just a good student but am also doing hands-on work at the healthcare center.

M: That's smart. I'll do that. Oh, uh, why don't you have Dr. Richards at the healthcare center write a letter for you as well?

W: Dr. Richards? Uh . . . Shouldn't I just have my professors write them?

M: No, you don't always need to do that. Plus, Dr. Richards is one of the most respected people in the field of mental health care. A recommendation from him would be, quite frankly, much more valuable than one from me.

W: 5 Oh . . . I had no idea.

M: Why don't you look him up on the Internet when you have some time? **You'll gain a new appreciation for the kind of man Dr. Richards is.** Plus, uh, it's always a good idea to know about the people you're working with.

W: Okay. I'll be sure to do that while I'm on the bus going there. Thanks for the advice, Professor Thompson.

Answer Explanations

1 **Gist-Purpose Question**
Ⓑ The student tells the professor, "I'd like for you to write one of the letters if you don't mind."

2 **Understanding Attitude Question**
Ⓒ The student remarks, "It's such a valuable experience."

3 **Making Inferences Question**
Ⓓ When the student expresses her disagreement with the actions of the head of the department, the professor responds, "I agree, but there's not much I can do about it because I'm just a junior member of the faculty." In saying that, he is implying that the department head's thoughts on the requirement for volunteering are wrong.

4 **Making Inferences Question**
Ⓐ The student says, "I have to visit the local healthcare facility in a few minutes so that I can do my volunteer work for our class there." Then, at the end of the conversation, she notes that she will be on the bus soon, so she will probably go to the healthcare center next.

5 **Understanding Function Question**
Ⓐ When the professor says that the student will "gain a new appreciation for the kind of man Dr. Richards is," he is implying that he respects Dr. Richards a great deal.

Lecture #1 [6–11]

Script

Listen to part of a lecture in a sociology class.

W Professor: During the late nineteenth century in the United States, there were a number of inventions which changed American society forever. Many of them were in the areas of communication, entertainment, industry, and transportation. In my opinion, the five most vital of these inventions were the motion picture, the automobile, the telephone, the phonograph, and the incandescent light bulb. Now, um, I don't want to go into the background regarding how these inventions came about. You can take a history of science class if you're interested in learning that. Instead, I'd prefer to look at them in turn and to examine how each one changed American society.

We shall begin with the motion picture. In order to understand the influence of motion pictures on society, you must first clearly understand what people did for

entertainment in the late nineteenth century. For the most part, individuals spent time with their families when they weren't working. When they did have a holiday, which was a fairly rare event, a trip to a nearby beach or the countryside was typical, especially after train service became more widespread in the country. In addition, once the safety bicycle was invented, cycling became a common pastime. Sports, especially professional baseball, were popular, and circuses were well attended, particularly since they were events parents could take their children to. Theater was popular and evolved into two types. There was traditional theater, in which plays and operas were staged. It was mostly attended by the well-to-do and cultured elites living in big cities. As for the masses, cheap vaudeville shows were preferred by them. These were traveling shows that went from place to place and featured a variety of performers, including singers, musicians, dancers, and comedians.

Into this mix came the motion picture. In the 1890s, movies were merely short strips of films which rarely lasted longer than a few minutes. They were mostly used to show off the wonders of the new invention. People went to places called nickelodeons, where small machines that cost them a nickel . . . uh, five cents . . . showed a short film strip. Simply the wonder of seeing people move on a small screen captured the imagination of the public and made nickelodeons extremely popular. The only problem with them was that, well, only one or two people could view a film strip at the same time.

For early filmmakers, their ideas on how to make and show motion pictures to the masses developed from the theater. Motion pictures adapted many elements from the theater, including, uh, let's see . . . paid actors, directors, and well-written scripts. Over time, motion pictures became longer and told stories that were either dramas or comedies. Moviemakers purchased theaters across the country, installed huge screens, and showed the latest movies to packed houses. By the early twentieth century, there were more than 10,000 motion picture theaters in the United States.

This had quite a few effects on American leisure and society as a whole. For one, motion pictures could be enjoyed by people of all ages and by men and women together. They could be viewed by all classes of people since they were cheap yet also entertaining. For instance, a movie theater might be filled with families, bankers, laborers, and farmers all rubbing elbows with one another while enjoying a good movie. This helped dismantle some of the barriers that existed between the social classes of the day. It did not, however, demolish them completely. Do keep that in mind. A second influence concerned the manner in which leisure changed. People began popularizing motion pictures to the point that traditional theater and vaudeville both suffered. Traditional theater never died out, and there's still an audience for it today, but attendance at plays, operas, and other similar staged events declined dramatically. As for vaudeville, it slowly disappeared. One of the reasons it vanished was that most of the famous, and best, vaudeville entertainers were lured into the motion picture industry by the higher pay. In addition, American tastes turned away from the simplicity of vaudeville acts and moved to the lure of lavish entertainment on the silver screen. So, uh, by the 1930s, vaudeville was pretty much dead.

An additional change concerned how people treated movie stars. The most popular actors, such as Charlie Chaplin, became the first movie idols. This, in turn, created the entertainment news industry. People everywhere wanted to know more about their favorite stars. Magazines and newspaper sections were dedicated to reporting the latest news from Hollywood, which was established as the motion picture capital of the country by the 1920s. People loved hearing gossip about their favorite stars, uh, much as they still do today. With the invention of sound technology for movies in the 1920s, the popularity of movies increased even more. By the 1930s, motion pictures were the most popular form of entertainment in the country.

I've got a short clip I'd like to show you now. It'll show you some images from nickelodeons, early films, and even some vaudeville shows, so I think you'll find it rather entertaining. Would somebody by the door be kind enough to turn off the lights, please?

Answer Explanations

6 Gist-Content Question

Ⓒ The professor mostly talks about the way in which motion pictures affected the American people.

7 Gist-Purpose Question

Ⓐ The professor tells the students about entertainment in the late 1800s to let the students know how motion pictures influenced society.

8 Detail Question

Ⓑ The professor says, "People went to places called nickelodeons, where small machines that cost them a nickel . . . uh, five cents . . . showed a short film strip. Simply the wonder of seeing people move on a small screen captured the imagination of the public and made nickelodeons extremely popular."

9 Connecting Content Question

Cause: 1 Effect: 2, 3, 4

As for causes, the professor states, "They could be viewed by all classes of people since they were cheap yet also entertaining." Regarding the effects of the rise of motion pictures, the professor says, "Traditional theater never died out, and there's still an audience for it today, but attendance at plays, operas, and other similar staged events declined dramatically." She adds, "They could be viewed by all classes of people since they were cheap yet also entertaining. For instance, a movie theater might be filled with families, bankers, laborers, and farmers all rubbing elbows with one another while enjoying a good movie. This helped dismantle some of the barriers that existed between the social classes of the day." She also comments, "As for vaudeville, it slowly disappeared. One of the reasons it vanished was that most of the famous, and best, vaudeville entertainers were lured into the motion picture industry by the higher pay."

10 Understanding Organization Question

Ⓑ The professor remarks, "The most popular actors, such as Charlie Chaplin, became the first movie idols."

11 Making Inferences Question

Ⓒ At the end of the lecture, the professor tells the class, "I've got a short clip I'd like to show you now. It'll show you some images from nickelodeons, early films, and even some vaudeville shows, so I think you'll find it rather entertaining."

Lecture #2 [12–17]

| Script |

Listen to part of a lecture in an environmental science class.

M Professor: The scientific term we use to refer to extended periods of extreme cold is glacial epoch, but ice age is the expression people are more familiar with, so it's the one I shall use during today's lecture. To begin with, let me define what an ice age is. An ice age is a period of lower temperatures during which glaciers advance from the poles and mountain ranges to cover a significant portion of the world. What do I mean by a significant portion of the world . . . ? Well, it's estimated that, um, at their greatest extent, glacial sheets covered nearly one-third of the entire planet.

The mechanics of glacial advancement are fairly straightforward. First, what happens is that temperatures begin to decrease, uh, by as much as five to ten degrees Celsius. As a result, significant climate change occurs throughout the planet. At the Polar Regions and in mountainous areas such as the Alps and Himalayas, there's an increasing amount of snowfall, which accumulates over hundreds or thousands of years, resulting in the formation of massive glaciers. On top of that, ocean waters in the Polar Regions become frozen into permanent ice sheets. This leads to something called the albedo effect. Can anyone tell me what it is? Yes? You with your hand up.

W Student: The albedo effect refers to how anything that's white reflects heat rather than absorbing it. Since we're talking about ice sheets, I guess what you mean is that because the snow and ice which comprise those ice sheets are white in color, during an ice age, there are large parts of the Earth's surface that reflect heat and don't absorb it.

M: That's correct. I'm pleased that at least one student did the reading I assigned for this class last week. So what happens as a result of the albedo effect, um, is that a great amount of heat is lost, which further lowers temperatures, resulting in more snowfall and more frozen ocean areas.

Then, uh, the glaciers begin advancing since the weight of the ice pushes down on them, and the ocean water freezes in great amounts. Meter by meter over decades, centuries, or millennia, these gargantuan ice sheets move forward, uh, sometimes traveling thousands of kilometers away from their initial points of origin. In the past, large—or entire—parts of Greenland, Canada, Russia, Scandinavia, Britain, mainland Europe, and Central Asia were buried beneath the ice. Yes, you have a question?

W: I've heard scientists claim they know that the Earth experienced ice ages at various times in the past, but, um, how exactly do they know that?

M: 17 One way we know that has to do with how the ice sheets altered the face of the land as they advanced. For instance, they carved out valleys and lakes, ground down hills, and moved rocks—some as big as houses—great distances. **It was similar changes in the land caused by small glaciers in more modern times that led to our theorizing about extensive ice ages.** The first place this was noticed was in the Alps in the eighteenth century. Since then, more evidence from around the world has helped us theorize about when ice ages happened millions of years ago.

It's currently believed that the planet has gone through five significant ice ages and that we're currently living in the last one. And, yes, I'm well aware that Manhattan and London aren't covered by glaciers. But you should know that ice ages are characterized by cycles of advances and retreats of ice sheets. The last major ice age began approximately two million years ago, and the last great advance of ice sheets was roughly 15,000 years ago. Right now, we're living during a time when the ice sheets have

retreated.

W: When is the next advance going to happen?

M: Hmm . . . Let me first explain why we think ice ages happen, and then I shall answer your question. There are several theories regarding what causes ice ages. Some experts theorize that great volcanic eruptions in the past threw up so much ash that the skies darkened, dramatically decreasing temperatures. Another theory is that the atmosphere's composition changed and, uh, and allowed heat to escape from the Earth, um . . . kind of like a greenhouse with all its windows open. A third theory claims that changes in the temperatures of ocean currents caused changes leading to ice ages.

The fourth theory is one that many scientists support. It's based on the amount of heat the Earth receives from the sun based on the planet's orbit and angle on its axis. Over thousands of years, the Earth's position changes, so we go through periods where we receive more heat or less heat. This is called the Milankovitch Cycle Theory. The scientist who proposed it believed that due to the Earth's imperfect orbit around the sun and changes in the tilt of its axis, the Earth went through cycles every 21,000 to 26,000 years during which it received less solar radiation than normal. He and others considered this to be the cause of ice ages. So I'd say that means we're going to see another glacial advance in around six to eleven thousand years.

Answer Explanations

12 Gist-Content Question

(B) The professor's lecture is mostly about the reasons that ice ages take place on the Earth at certain times.

13 Understanding Attitude Question

(B) The professor compliments the student for her knowledge by saying, "That's correct. I'm pleased that at least one student did the reading I assigned for this class last week."

14 Detail Question

2, 3 First, the student comments, "Since we're talking about ice sheets, I guess what you mean is that because the snow and ice which comprise those ice sheets are white in color, during an ice age, there are large parts of the Earth's surface that reflect heat and don't absorb it." Then, the professor states, "So what happens as a result of the albedo effect, um, is that a great amount of heat is lost, which further lowers temperatures, resulting in more snowfall and more frozen ocean areas."

15 Gist-Purpose Question

(D) The professor lectures, "The fourth theory is one that many scientists support. It's based on the amount of heat the Earth receives from the sun based on the planet's orbit and angle on its axis. Over thousands of years, the Earth's position changes, so we go through periods where we receive more heat or less heat. This is called the Milankovitch Cycle Theory. The scientist who proposed it believed that due to the Earth's imperfect orbit around the sun and changes in the tilt of its axis, the Earth went through cycles every 21,000 to 26,000 years during which it received less solar radiation than normal. He and others considered this to be the cause of ice ages. So I'd say that means we're going to see another glacial advance in around six to eleven thousand years."

16 Making Inferences Question

(D) In stating, "So I'd say that means we're going to see another glacial advance in around six to eleven thousand years," after discussing the Milankovitch Cycle Theory, the professor implies that he is a supporter of it.

17 Understanding Attitude Question

(A) The professor's statement means that events which happened recently were utilized to make guesses about other events that happened in the past in other ice ages.

Practice with Short Passages p. 52

A

Answers

1 (C) 2 (A)

| Script |

Listen to part of a conversation between a student and a student housing office employee.

M Student: Excuse me, but I need to check out of my dormitory room. Are you the person I need to speak with to do that?

W Student Housing Office Employee: I'm sorry, but did you just say that you need to check out of your dormitory room?

M: Yes, that's correct.

W: Um . . . why are you doing that? We haven't even passed the halfway point of the semester yet.

M: Well, uh, I've decided I'm going to move back home with my parents. They aren't in the best of health, so I should be at home for them in case they have any problems. As a result, I no longer need to have my dormitory room. You know, uh, I called this morning and spoke with someone here. She told me that it wouldn't be a problem and that I'd be able to check out of my room easily. I'm guessing it wasn't you with whom I spoke, right?

W: Yes, this is the first time that I've heard of this. Do you recall the woman's name?

M: Sorry, but she never mentioned it while I was speaking with her. There, uh, there aren't going to be any problems turning in my key and filling out any forms, are there? I've got a class to attend soon, and I was hoping to get this taken care of before then.

W: Er, unfortunately, I think you're going to have to come back later in the day to take care of this matter.

M: Why's that?

W: Since it's lunchtime, everyone except me is out of the office. And I, um, I only started working here on Monday, so I'm not familiar at all with the procedure. Would it be possible for you to return after your class?

M: Yeah, okay. I guess I can do that. I'll be back here around, hmm . . . around two thirty. Yeah, I can make it here by then.

W: Great. Could you let me know your name, please?

M: Sure. I'm Dylan Carter.

W: Thanks, Dylan. I'll find out who you talked with and make sure she's here at half past two. See you then.

Answer Explanations

1 (C) The student comments, "Well, uh, I've decided I'm going to move back home with my parents. They aren't in the best of health, so I should be at home for them in case they have any problems. As a result, I no longer need to have my dormitory room."

2 (A) The woman says, "Since it's lunchtime, everyone except me is out of the office. And I, um, I only started working here on Monday, so I'm not familiar at all with the procedure. Would it be possible for you to return after your class?"

B

Answers

1 (B) 2 Fact: 1, 3 Not a Fact: 2, 4

| Script |

Listen to part of a conversation between a student and a professor.

M1 Professor: Good afternoon, Kevin. Do you need to speak with me about something?

M2 Student: Yes, Professor Campbell, I do. Would you happen to have a couple of minutes to spare for me?

M1: Sure. What do you want to talk to me about?

M2: It's the homework that you assigned to us in class. There's a, uh, a bit of a problem with it.

M1: A problem? But I only assigned a short reading and writing assignment. How could there possibly be something wrong with that?

M2: Er . . . I think I may have misspoken just now. There's not actually a problem with the assignment itself. But there is a problem for me concerning the due date.

M1: What is it?

M2: Well, um, we're supposed to do the reading and then submit our analysis of it by this Friday, right?

M1: That's correct.

M2: But, uh, I don't believe I can get it to you until next Monday. You see, uh, I'm a member of the school's swimming team, and we're going to have a swim meet on Friday. It's going to be held out of town—uh, in Madison—so we're leaving for the swim meet on Thursday afternoon. But we'll be back on Saturday, so I should be able to do the assignment over the weekend and then turn it in to you in class on Monday. How does that sound?

M1: I'm afraid that's an unacceptable suggestion, Kevin.

M2: Huh? Why do you say that?

M1: Kevin, today's Monday, so you have plenty of time to get the assignment done. You only need to read fifteen pages in the textbook and then write a two-page analysis of what you read. I'm pretty sure you can get it to me before you leave on Thursday.

M2: B-b-b-but . . . I've got class all day on Thursday. How will I be able to submit my paper to you?

M1: You can either have a friend drop it off with me, or you can email it. Either way will suffice.

Answer Explanations

1 Ⓑ The student says, "You see, uh, I'm a member of the school's swimming team, and we're going to have a swim meet on Friday. It's going to be held out of town—uh, in Madison—so we're leaving for the swim meet on Thursday afternoon. But we'll be back on Saturday, so I should be able to do the assignment over the weekend and then turn it in to you in class on Monday."

2 Fact: 1, 3 Not a Fact: 2, 4
It is a fact that the student's assignment is due on Friday. The professor also says, "You only need to read fifteen pages in the textbook and then write a two-page analysis of what you read," so it is true that the student must write about some pages in the book. It is not true that the assignment is worth ten points or that the professor will only accept emailed submissions.

C

Answers

1 Ⓑ 2 Ⓑ, Ⓒ

| Script |

Listen to part of a lecture in a marine biology class.

W Professor: Ever since man began sailing, there have been tales about monsters dwelling in the world's oceans and seas. Monster sightings were actually quite common in the past. Sailors, you see, are superstitious by nature, so they were quick to believe there were great beasts living in the ocean that were capable of grasping ships and pulling them and their crews beneath the surface. These creatures were often called sea serpents, but they also got more fanciful names, such as the kraken of Norse mythology. So the question is . . . did sailors truly see real monsters, or were they just, well, were they just spinning tales? And if they did see something, what explanations can we give for those sightings based upon our current knowledge of marine life? Ted, your hand is up.

M Student: They probably saw whales or, uh, maybe giant squid.

W: Hmm . . . Giant squid is a definite possibility, but I'm not so sure about whales. Actually, I'm quite confident in stating that sailors claiming to have seen a kraken had really merely observed giant squid. Here's why . . . A kraken supposedly had ten arms—just like squid—and could grasp objects. Sailors claimed it was so big that it could grab a sailing ship with three masts and drag it to the bottom of the sea. But I'm pretty sure that was their imaginations working overtime. After all, most giant squid never grow larger than a dozen meters in length, and that includes their long tentacles. While that is pretty big, a giant squid could never drag a large vessel underwater. It might manage to sink a small rowboat, uh, but not a big ship. But, um, as for whales, I don't believe sailors would have mistaken them for sea monsters due to the fact that whales were well known to sailors. They would have recognized whales for what they were.

There's another possibility though . . . the oarfish. Sailors might have seen it and thought it was a sea serpent. Look up here on the screen . . . and you'll see why. This is a picture of an oarfish that washed ashore in California a while ago. This very long, silver-colored fish swims close to the surface when it's sick or dying and sometimes washes ashore after it dies. While this specimen isn't very long, the oarfish has been known to grow as long as eleven meters. Note its long, spiny dorsal fin . . . Notice how it runs the length of the fish's body from head to tail. And consider the fact that the oarfish rarely swims near the surface, so many sailors had never seen one before. Combine that fact with its long, snaky body and spiny dorsal fin, and you have the makings of a sea serpent.

But we have to consider one more thing: These sea serpents, monsters, krakens, or whatever you call them could be an unknown species of marine life. Remember that we discover more species of plants and animals every year. The world's oceans—and also its rainforests—are a couple of places that haven't been completely explored yet. So it's entirely possible that there are unknown and uncatalogued creatures swimming deep in the ocean and rarely coming to the surface. Some suggest that these unknown creatures may be beasts from the age of dinosaurs that were long thought to be extinct. I guess we won't know until we discover one of them.

Answer Explanations

1 Ⓑ The professor notes, "A kraken supposedly had ten arms—just like squid—and could grasp objects."

2 Ⓑ, Ⓒ The professor lectures, "Note its long, spiny dorsal fin . . . Notice how it runs the length of the fish's body from head to tail. And consider the fact that the oarfish rarely swims near the surface, so many sailors had never seen one before. Combine that fact with its long, snaky body and spiny dorsal fin, and you have the makings of a sea serpent."

D

Answers

1 Ⓓ 2 Ⓐ

| Script |

Listen to part of a lecture in a chemistry class.

M Professor: Snow, as you know, is a form of precipitation. It forms when the moisture in clouds cools and makes crystal structures that we see as snowflakes. Of course, uh, this doesn't always happen since there must be the right combination of temperature and humidity for snowflakes to form. There must also be some impurities, such as dust particles, for the water to attach to and then freeze on. Each snowflake isn't the same either. Depending upon changes in the temperature and humidity as it falls, a snowflake can change its structure. Scientists theorize that there are more than 100 variables which influence how a snowflake forms. Because of that, they believe there are an infinite number of snowflake shapes, so the end result is that, well, every snowflake is unique.

But snowflakes do have one thing in common: They always start by forming a basic six-sided hexagonal structure. They have this shape on account of the way the water molecules bond to a dust particle and then freeze in a crystal lattice, uh, with the oxygen and hydrogen atoms in different molecules of water bonding to one another. Here's an image on the screen . . . This is an enlarged microscopic image of the beginning of the formation of a snowflake. At the start, it's merely a solid six-sided ice crystal like you can see here. The lattice's sides are perfectly straight. But, uh, the snowflake doesn't remain in this shape for long. Instead, as it forms, it becomes heavier and falls from the clouds. While falling, it passes through layers of air with various temperatures and amounts of humidity. These transform the ice crystal into different shapes and sizes and therefore create the snowflake's final shape.

The most common additions to ice crystals are arms of ice that grow from the central six-sided lattice. Here . . . Uh, these are twelve enlarged images of snowflakes, all of which have different shapes.

W Student: Each of them appears the same in the center. Shall I assume that's the original crystal lattice?

M: That's a good—and correct—observation. Yes, class, look at the center of each snowflake, and you'll see the original six-sided lattice, which is the same for every one of them. But as these flakes fell, water molecules attached themselves to the lattice and formed larger snowflakes. And due to variations in temperature and humidity, the literally infinite variety of combinations of these two factors, and the different number of layers of air these snowflakes passed through, they all developed different final structures.

One thing you might observe is that these pictures show perfectly formed snowflakes that are symmetrical on all sides. That's not always the case though. Oftentimes, one part of a snowflake grows larger than another part. This may occur when a sudden change in the environment the snowflake is in happens so rapidly that it doesn't have time to affect the growth of the entire snowflake while it's falling toward the ground.

Another difference you should be aware of is the size. Not all snowflakes are the same size, but snowflakes are limited in size. The smallest ones are no more than zero point two millimeters wide while the largest are no greater than five millimeters wide. Ice crystals smaller than that are too light to fall to the ground as snow, so they remain in the air. And those bigger than five millimeters are too large, so they break up into smaller pieces as they fall to the ground.

Answer Explanations

1 Ⓓ The professor tells the students, "But snowflakes do have one thing in common: They always start by forming a basic six-sided hexagonal structure."

2 Ⓐ The professor comments, "Oftentimes, one part of a snowflake grows larger than another part. This may occur when a sudden change in the environment the snowflake

is in happens so rapidly that it doesn't have time to affect the growth of the entire snowflake while it's falling toward the ground."

Practice with Long Passages p. 56

A

Answers

1 (B) 2 (D) 3 (A) 4 (C)

| Script |

Listen to part of a conversation between a student and a librarian.

W Student: Pardon me, but are you one of the librarians here? I have a problem which I think only a librarian can help me with.

M Librarian: Hi. Uh, yes, I'm a librarian. What kind of problem do you have? Do you need a reference book or something?

W: Um, I'm not really sure. I need some books, but I'm having a bit of difficulty using the computerized search system. Do you think you can assist me for a moment?

M: Of course. Which computer are you working on?

W: This one right over here.

M: Okay, what exactly is the problem you're encountering when you're trying to find a book?

W: Well, uh, I keep inputting some different subjects, but nothing's coming up on the screen. Take a look at this . . . I'm going to type the subject now . . . scholasticism . . . but I'm getting this message from the computer. It reads "No books available."

M: Huh . . . That can't be right. I know for a fact we have plenty of books on that particular topic. Do you happen to know the names of any specific authors? We can try searching for one of them.

W: Sure. Uh, let me consult my notes here . . . Ah, yes. Marrone is one. That's M-A-R-R-O-N-E. One of my classmates checked out a book by him from the library last month and said it was pretty good.

M: Hmm . . . Again, we just got the same message. And I'm familiar with that author and know we have no fewer than two of his books in our collection. Why don't we try to use another computer? There could be a problem with this computer.

W: All right. Nobody's using this one here, so let me type in the author's name again . . . Nope, it's the same message as before.

M: Okay, it appears as though there's a problem with the entire computerized search system. I need to contact someone to let her know about this issue so that the technicians can get to work on fixing the system.

W: Sounds good. How long will that take?

M: I've got absolutely no idea. 🎧4 Sorry, but I just don't know. It could be a quick fix, which might require an hour or so of maintenance, or it could take a lot longer. It depends on what's wrong with the system.

W: **I'm sorry, but did you just say it could take an hour to fix if it's a minor problem?**

M: Yes. That's correct.

W: Um . . . I don't have that much time to wait around, and I have to get some books as quickly as possible.

M: Well, I can take you to the place in the library's collection where the books you need are kept. But would you mind waiting a couple of minutes? I need to speak to my boss at once.

W: Sure. I'll be right here when you get back.

M: Thanks. I'll come back in a bit.

Answer Explanations

1 (B) The student tells the librarian, "I need some books, but I'm having a bit of difficulty using the computerized search system."

2 (D) The librarian remarks to the student, "And I'm familiar with that author and know we have no fewer than two of his books in our collection."

3 (A) At the end of the conversation, the librarian states, "But would you mind waiting a couple of minutes? I need to speak to my boss at once."

4 (C) The student is expressing her surprise at what the librarian says. She cannot believe that it will take an hour to fix a minor problem, so she shows how surprised she is when she says that.

Dictation

1 I need some books, but I'm having some difficulty using the computerized search system.

2 I keep inputting some different subjects, but nothing's coming up on the screen.

3 I need to contact someone to let her know about this issue so that the technicians can get to work on fixing the system.

B

Answers

1 (C) 2 (C), (D)
3 Fact: 3 Not a Fact: 1, 2, 4 4 (C)

| Script |

Listen to part of a lecture in an oceanology class.

M Professor: Approximately seventy-one percent of the Earth's surface is covered by water, and the vast majority of that, uh, more than ninety-five percent, is found in the oceans. Regarded as a whole, the oceans constitute one enormous body of water surrounding all of the landmasses on the planet. However, we conveniently divide the oceans into separate parts, the three largest of which are the Pacific, Atlantic, and Indian oceans. Before we go into more detail on the oceans today, I'd like to go over how they were initially formed with you. I think you'll find it rather enlightening.

Firstly, you should be aware that there are two major theories concerning the formation of the oceans. One claims that the water came from inside the planet while the other avers that the water arrived on the Earth by external sources, by which I mean, um, comets and large asteroids hitting the planet. Let's look at the first theory now. It's related to how the Earth itself was formed. Billions of years ago, swirling masses of gas, ice, and dust formed the solar system and all its heavenly bodies. As these particles collided, they formed larger and larger masses and eventually became the planets, including the Earth. But the Earth didn't initially appear the way it does today either on its surface or in its interior. You see, uh, inside the planet, the different layers were still forming from the mass of material which had collided. As this material gradually separated into the crust, mantle, and core, a great amount of gas was released from the ground through volcanic activity. This is called outgassing, um, in case you're unaware. Well, uh, this gas helped form the first atmosphere, which included molecules of water in their gaseous forms, so they became clouds. However, the Earth was still very hot—more than 400 degrees Celsius. It was so hot that water vapor couldn't become liquid water. After millions of years, the Earth cooled enough, so the temperature fell beneath 100 degrees Celsius, and that caused the water in the clouds to fall to the surface as rain. Over a long period of time, the falling water filled in the low-lying spots and became the oceans.

The second theory posits that asteroids and large comets hit the Earth. They were partially composed of ice, which melted on the planet, became water vapor, and rose into the atmosphere. When the Earth cooled enough, the clouds released the water in them, rain fell, and the water formed the oceans.

W Student: 🎧4 Couldn't both theories be correct? I mean, um, each of them could have played a role in forming the oceans, right?

M: **That's a distinct possibility.** In fact, many scientists are starting to lean toward it. There's even a growing debate on which method contributed more water to the oceans. Personally, I believe outgassing accounted for the majority of the water on the planet. Why is that? Well, I simply feel that the huge amount of water in the oceans couldn't possibly have come from comets and asteroids. I agree with the theoretical models suggesting that eighty percent of the water came from outgassing while the rest arrived on comets and asteroids.

Now, uh, you may wonder why the Earth has such large oceans but the other planets and their moons don't. There are three main reasons. First, the Earth's location in the solar system is neither too close to the sun nor too far from it. So the planet is hot enough for water to be in a liquid state but not so hot that it turns into gas. Likewise, it's not so far away from the sun that it's so cold that the water freezes into enormous sheets of ice. A second reason is that the Earth's gravity is strong enough to prevent the water from flying off the planet's surface. Lastly, the planet has a thick atmosphere, which prevents ultraviolet radiation from burning off the water.

Answer Explanations

1 (C) While talking about the formation of the solar system, the professor says, "It's related to how the Earth itself was formed." Then, he talks about how it affected the creation of the Earth.

2 (C), (D) The professor states, "One claims that the water came from inside the planet while the other avers that the water arrived on the Earth by external sources, by which I mean, um, comets and large asteroids hitting the planet." He also says, "As this material gradually separated into the crust, mantle, and core, a great amount of gas was released from the ground through volcanic activity. This is called outgassing, um, in case you're unaware. Well, uh, this gas helped form the first atmosphere, which included molecules of water in their gaseous forms, so they became clouds."

3 Fact: 3 Not a Fact: 1, 2, 4
The professor mentions, "Now, uh, you may wonder why the Earth has such large oceans but the other planets and their moons don't." However, he also remarks, "Approximately seventy-one percent of the Earth's surface is covered by water, and the vast majority of that, uh, more than ninety-five percent, is found in the oceans." So it is not true that seventy percent of the water on the planet is in the oceans. In addition, the oceans did not form right after the Earth was created, and he also points out, "Lastly, the planet has a thick atmosphere, which prevents ultraviolet radiation from burning off the water." Therefore ultraviolet radiation does not burn off any of the water in the oceans.

4 Ⓒ In stating, "That's a distinct possibility," it can be inferred that the professor believes that the student's theory could be correct.

Dictation

1 Before we go into more detail on the oceans today, I'd like to go over how they were initially formed with you.

2 Firstly, you should be aware that there are two major theories concerning the formation of the oceans.

3 The second theory posits that asteroids and large comets hit the Earth.

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Answers

1 1, 3	2 Ⓑ	3 Ⓓ	4 Ⓑ	5 Ⓓ
6 Ⓐ	7 Ⓑ	8 Ⓑ	9 Ⓓ	10 Ⓐ
11 Ⓒ	12 Ⓑ	13 Ⓒ	14 Ⓓ	
15 Fact: 1, 2, 4 Not a Fact: 3		16 2, 3	17 Ⓐ	

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and a professor.

W1 Student: Good afternoon, Professor Hamilton. Thanks for agreeing to see me on such short notice.

W2 Professor: It's no problem, Andrea. So, uh, what can I help you with today? Do you have something to discuss regarding yesterday's lecture?

W1: Oh, no, ma'am. I didn't have any problems understanding the material you covered. I thought it was fascinating, so I went to the library and checked out some books on David Ricardo. I haven't looked at them yet, but I'm planning to do some reading this weekend.

W2: 5 I'm pleased to learn my lecture inspired you to do some research of your own. I find Ricardo to be an intriguing economist. I've even published a few articles on his theories, so feel free to come here to discuss the books with me when you're finished reading them.

W1: **I'll be sure to take you up on that offer, ma'am.**

W2: Excellent.

W1: So, uh, anyway, I want to discuss a couple of things with you. The first is the final exam.

W2: What about it?

W1: I know it's not for three more weeks, but I've already started studying for it. I wonder if there are any, uh, tips you can give me for the test. I mean, uh, do I need to study all the material we've learned thus far, or should I focus exclusively on what we've studied since the midterm exam?

W2: Hmm . . . I'd say the bulk of the exam questions will be about the material we've covered since March. However, you need to be familiar with everything we've learned this semester. Having said that, spend, uh, ninety percent of your time on the information you haven't been tested on yet. Is that good enough?

W1: Yes, it is. Thanks a lot.

W2: And the other thing you need to talk about?

W1: Ah, yes. I'm planning on doing an internship this summer.

W2: Er . . . Don't you think it's a bit too late to be applying for them? Most students apply for them either in late winter or early spring.

W1: Oh, uh, I already applied, and I found out this week that two companies have offered me internships. I was hoping you could give me some advice on which of the two internships I should accept.

W2: Congratulations, Andrea. That's very well done, especially since you're only a sophomore. It's extremely impressive to get two offers in one summer. Tell me about them.

W1: The first is an internship at Philips Consulting, which is located here in the city.

W2: I'm familiar with the company. And the other one?

W1: It's for a firm in London called Wilson Financial. My, uh, father knows some people there—uh, they're colleagues of his—so he helped arrange it for me. Both are paid internships by the way.

W2: Well, not knowing the specific details, I'd recommend that you go to London as it would be a great experience to live and work in a foreign country. You'd probably get a lot more out of it than you would by staying here. And it would look good on your résumé because Wilson Financial is very well known in the business world.

W1: Hmm . . . I was leaning toward taking the Philips Consulting job, but I'll have to reconsider now.

W2: I would if I were you. Philips is a good company, but it's nothing compared to Wilson.

Answer Explanations

1 Gist-Purpose Question

1, 3 First, the student says, "So, uh, anyway, I want to discuss a couple of things with you. The first is the final exam." Then, in response to the professor's question about the other thing she wants to talk about, the student comments, "Ah, yes. I'm planning on doing an internship this summer."

2 Detail Question

Ⓑ The professor tells the student, "I'd say the bulk of the exam questions will be about the material we've covered since March. However, you need to be familiar with everything we've learned this semester. Having said that, spend, uh, ninety percent of your time on the information you haven't been tested on yet."

3 Making Inferences Question

Ⓓ The student remarks, "It's for a firm in London called Wilson Financial. My, uh, father knows some people there—uh, they're colleagues of his—so he helped arrange it for me." When the student says that, it can be inferred that her father works in the financial sector since he has colleagues at Wilson Financial.

4 Understanding Attitude Question

Ⓑ The professor proclaims, "Philips is a good company, but it's nothing compared to Wilson."

5 Understanding Attitude Question

Ⓓ When the student says that she'll be sure to take the professor up on her offer, she means that she will visit the professor in her office to discuss some books after she reads them.

Lecture #1 [6–11]

| Script |

Listen to part of a lecture in an environmental science class.

W Professor: The environments in different parts of the world are interconnected in some unusual ways. What happens in one place frequently influences what occurs in another. This may have positive or negative effects. Let me give you an example of what I'm talking about. In Africa, there's a depression . . . uh, that means it's a low area of land . . . called the Bodele Depression. You spell it B-O-D-E-L-E in case you're unaware. The Bodele Depression is in the North African nation of Chad. It has such high winds that large dust storms occur there roughly 200 days a year. And I'm not talking about simple gusts of wind either. These dust storms are so powerful that they pick up huge amounts of dust and carry it into the atmosphere. Then, the air currents in the upper atmosphere transport the dust all the way across the Atlantic Ocean and deposit it in Brazil, mostly in the Amazon Rainforest.

Now, um, you'd think that being constantly covered by large clouds of dusts would be bad for the rainforests in Brazil, wouldn't you? Remember that this is an enormous amount of dust. It's estimated that forty million tons of dust is transported from the entire Sahara region to the Amazon each year. A large part—approximately half—comes solely from the Bodele Depression. Well, uh, rather than being harmful, the dust actually provides numerous benefits for the rainforest. The reason is that it's rich in minerals which positively affect the growth of plants. Here, uh, I shall explain . . . These minerals come from the floor of the depression, which was the bottom of a sea millions of years ago. During that time, uncountable numbers of marine lifeforms died and then formed sedimentary layers of mineral-rich rocks on the seafloor. Most of the marine lifeforms were small ones called diatoms. They're a form of algae that have hard outer shells. The sedimentary rock that formed is called diatomite. As the wind blows across the Bodele Depression, it picks up eroded diatomite particles and then carries them across the Atlantic Ocean.

M Student: Excuse me, but how is the wind possibly strong enough to do that?

W: Good question. The reason has to do with the unique geography of the depression. Hold on a moment . . . Okay, there it is up on the screen. You're looking at a satellite image of the Bodele Depression. Notice the two large land formations to the north and south here . . . Now, um, notice how it narrows at its southwest end. These two large masses are high mountain formations that form a narrow valley. The depression is the floor of this valley. The mountains create a, um, a natural funnel for the wind to blow through. It's estimated that the winds reach speeds of up to fourteen meters per second, which is around fifty kilometers per hour. Those aren't

hurricane-force winds, but they're still blowing rather fast. During wintertime in the Northern Hemisphere . . . uh, between the months of November and March, the winds in the Sahara blow mainly from the northeast and move in a southwesterly direction on a direct path to Brazil. The dust is therefore picked up and carried as high as three kilometers into the air. Then, it flows more than 5,000 kilometers all the way to Brazil.

Of course, um, some dust falls into the ocean, but quite a large amount still makes it to Brazil. So, uh, what are the benefits . . . ? Well, first off, you need to understand something about the Amazon Rainforest. It's a wet place with poor naturally occurring soil. Most of the nutrients and minerals in it are washed away by heavy rains. Yes?

M: Ah, I get it. The dust from the Bodele Depression is like, uh, it's like fertilizer for the soil in the Amazon.

W: Precisely. The minerals in the dust enrich the soil, which enables plants to grow well. Some studies suggest that without the dust from the Bodele Depression, most of the area covered by the Amazon Rainforest would be like a desert—a hot, wet desert with poor soil unable to sustain life. That would have drastic consequences for the world since the Amazon region and its large biomass of plant life provide many benefits, particularly the production of oxygen and the removal of carbon dioxide from the atmosphere. On top of this are the large numbers of plants in the Amazon that have medicinal benefits and the fact that the region is home to thousands of species of mammals, birds, insects, and other animals.

The question is how long this enriching of the Amazon by African dust can continue. It's unknown how large the deposit of mineral-rich soil in the Bodele Depression is. And it's also unknown at what rate the sedimentary rock will continue to erode to provide a source of the dust. Yes, uh, it's true that other regions of the Sahara provide some of the dust that blows westward to the Amazon, but, as I already mentioned, the Bodele Depression provides more than half of it. The worry is that, one day, this source will be exhausted, and then there will be some serious consequences for both the Amazon and the rest of the world.

Answer Explanations

6 Gist-Content Question

Ⓐ Most of the lecture is about the Bodele Depression and how it affects the Amazon Rainforest.

7 Making Inferences Question

Ⓑ The professor remarks, "It has such high winds that large dust storms occur there roughly 200 days a year. And I'm not talking about simple gusts of wind either. These dust storms are so powerful that they pick up huge amounts of dust and carry it into the atmosphere." Since there is so much dust there, it can be inferred that the land is dry and that little rain falls there.

8 Detail Question

Ⓑ The professor comments, "Most of the marine lifeforms were small ones called diatoms. They're a form of algae that have hard outer shells. The sedimentary rock that formed is called diatomite."

9 Understanding Function Question

Ⓓ About the wind, the professor says, "During wintertime in the Northern Hemisphere . . . uh, between the months of November and March, the winds in the Sahara blow mainly from the northeast and move in a southwesterly direction on a direct path to Brazil. The dust is therefore picked up and carried as high as three kilometers into the air. Then, it flows more than 5,000 kilometers all the way to Brazil." So she talks about the wind to explain how it can blow so much dust to Brazil.

10 Detail Question

Ⓐ The professor points out, "The minerals in the dust enrich the soil, which enables plants to grow well. Some studies suggest that without the dust from the Bodele Depression, most of the area covered by the Amazon Rainforest would be like a desert—a hot, wet desert with poor soil unable to sustain life."

11 Connecting Content Question

Ⓒ The professor states, "Well, first off, you need to understand something about the Amazon Rainforest. It's a wet place with poor naturally occurring soil. Most of the nutrients and minerals in it are washed away by heavy rains." Furthermore, she comments, "Some studies suggest that without the dust from the Bodele Depression, most of the area covered by the Amazon Rainforest would be like a desert—a hot, wet desert with poor soil unable to sustain life." Thus the disappearance of mineral-rich soil from the Bodele Depression would likely result in fewer plants growing in the Amazon Rainforest.

Lecture #2 [12–17]

Script

Listen to part of a lecture in an art history class.

W Professor: As you may or may not be aware, in ancient times, the Greeks established several colonies in the southern part of Italy just as Rome was becoming a strong power in central Italy. Ultimately, the two sides clashed, and the Greeks were forced out of Italy. Nevertheless, the Greeks influenced the Romans long after they were no longer physically present. Of course, we're interested primarily in art in this class, but the Greeks also influenced the Romans with regard to, hmm, well . . . religion, law, architecture, politics, and even warfare. If you want to find out more, I suggest enrolling in Professor Stern's history of Rome class next semester. You'll find it highly educational.

Anyway, when we talk about Roman art, we're mainly referring to sculptures, especially statues. 17 The reason is that most of the surviving art pieces we have from Roman times are statues which have stood the test of time. The Romans utilized both metal and stone to make statues. Bronze and marble were their two favorite materials. **However, metal had a high reuse value in the centuries after many pieces were created, so most of the Roman statues that have survived to the present day are ones sculpted from stone.**

The Greek influence on these statues is easy to see, especially with regard to statues from the time of the Roman Republic, which happened before the Romans began moving away from Greek influence. The Romans often copied Greek statues. They did this so much that many examples of Greek statues can only be found in Roman copies since the originals have been lost over time. Statues of Greek gods and heroes were particularly popular. The Greeks strove to make their statues perfect representations of the human body, an aspect greatly admired by the Romans. The Greek style varied from the Etruscan style, which had influenced the Romans in earlier times. The Etruscans, in case you are curious, were less concerned about representing the human body accurately.

Another reason the Greeks influenced Roman art is that many of the sculptors working in Rome were from Greece. They were either hired to create art or were slaves that had been captured during Rome's numerous conquests. The Romans were so enamored by the Greek style that they shipped many works of art to Italy after conquering Greece. When the supply of original Greek statues was exhausted, the Romans founded two schools to train sculptors to make copies. One school was in Rome while the other was in Athens. There was even heavy demand for miniature replicas of Greek statues, which Romans used as decorations for their homes.

M Student: Did the Romans also copy the statues the Greeks decorated their buildings with?

W: Not that much. The Greeks made statues of people and animals but also heavily used statues of mythological figures and gods for their buildings. The Romans, on the other hand, preferred more realism. The carvings and sculptures on the Arch of Constantine and Trajan's Column mostly depict people. These people were typically Roman warriors, conquered enemies, and Roman emperors. I should point out that the two examples I just mentioned come from the empire period, when the Greek influence on Roman sculptures was waning. Around then, the Romans started making their statues even more realistic than the Greeks had. They used tricks of light and shading to make their statues seem as lifelike as possible.

The Greeks additionally influenced Roman portrait sculptures, which showed only the head or, um, the upper body and head of an individual. The Romans, just like the Greeks, started by creating realistic images of people carved in stone and metal. The Romans even imitated the Greek style of painting on irises and pupils rather than carving directly on the eyes. Perhaps you've noticed that many Greek and Roman statues lack pupils and irises and, uh, thus appear to have no eyes. In fact, most Greek and Roman statues were painted in colorful hues, but the paint wore off over time and left behind white stone. In the second century A.D.—uh, that was during the Roman Empire—Roman sculptors began carving eyes, irises, and pupils. They also started making very realistic depictions of living people in their portrait sculptures so that even wrinkles and blemishes such as moles are apparent.

Over time, the Romans also became less influenced by the Greeks with respect to the sizes of their statues. In the early Roman Empire, Roman sculptors started making colossal statues of their own gods. The Romans worshipped their emperors as gods, so they created massive statues of them as well. Roman emperors were often posed on horseback or standing tall while dressed in regal clothing and with an arm stretched out as if they were waving to their adoring subjects. If you look at page seventy-three in your books, you'll see a picture of a statue of Emperor Augustus in that classic pose . . . That statue is a mere two meters high. There was once, however, a statue of Emperor Nero in Rome that was thirty meters high. Sadly, it's been lost. Now, uh, I think that's enough background information. Let me show you some Greek and Roman statues so that you can see what I'm talking about.

Answer Explanations

12 Gist-Content Question

Ⓑ The professor mainly talks about how the Greeks influenced Roman art.

13 Connecting Content Question

Ⓒ The professor says, "The Greeks strove to make their

statues perfect representations of the human body, an aspect greatly admired by the Romans. The Greek style varied from the Etruscan style, which had influenced the Romans in earlier times. The Etruscans, in case you are curious, were less concerned about representing the human body accurately."

14 Understanding Organization Question

Ⓓ The professor remarks, "The carvings and sculptures on the Arch of Constantine and Trajan's Column mostly depict people. These people were typically Roman warriors, conquered enemies, and Roman emperors."

15 Detail Question

Fact: 1, 2, 4 Not a Fact: 3

The professor states, "When the supply of original Greek statues was exhausted, the Romans founded two schools to train sculptors to make copies. One school was in Rome while the other was in Athens. There was even heavy demand for miniature replicas of Greek statues, which Romans used as decorations for their homes" About the Romans, she says, "They also started making very realistic depictions of living people in their portrait sculptures so that even wrinkles and blemishes such as moles are apparent." However, the professor also points out, "The Greeks made statues of people and animals but also heavily used statues of mythological figures and gods for their buildings. The Romans, on the other hand, preferred more realism. The carvings and sculptures on the Arch of Constantine and Trajan's Column mostly depict people."

16 Detail Question

2, 3 The professor mentions, "Roman emperors were often posed on horseback or standing tall while dressed in regal clothing and with an arm stretched out as if they were waving to their adoring subjects."

17 Understanding Function Question

Ⓐ The professor implies that, due to the value of metal, many Roman statues made of metal were recycled in later times.

Practice with Short Passages p. 70

A

Answers

1 Ⓒ 2 Ⓐ

| Script |

Listen to part of a conversation between a student and a student activities office employee.

W Student: Good afternoon, Mr. Martinson. How are you doing today?

M Student Activities Office Employee: Hi, Katie. I'm all right. Is there something I can do for you?

W: Yes, there is. You remember I told you that I make various handicrafts in my free time, right?

M: Sure. You've mentioned that to me before a couple of times. I don't think I've ever seen anything you've made, but I know it's your hobby. Why do you ask?

W: I showed some items I made to my art professor, and she told me that the quality was pretty good and that I ought to sell them.

M: Hey, that's a great idea. You could probably set up a webpage and sell them online. You could get buyers from all over the world.

W: Uh, slow down, Mr. Martinson . . . That's a bit too ambitious for me at this time. Instead, I'm considering selling the items here on campus. There are always people selling things on the sidewalks here. In fact, uh, I've even bought some items from them. Do they have to get permission to sell things on campus, or can they set up a booth without asking anyone?

M: They most definitely must get permission from us. If they don't, we call the campus police and have them escorted off the university grounds.

W: Wow, that's pretty harsh.

M: It appears severe, but it isn't. After all, we're responsible for everything which gets sold on campus, so we have to make sure every vendor complies with the various state and federal laws.

W: I see. It sounds like it might be a bit, uh, difficult for me to get permission. Should I not even bother trying?

M: Not at all. The process is relatively simple. I do it for vendors all the time. Basically, you need to let me know precisely what types of items you're going to be selling. Pictures, uh, or even a few samples, would be nice. And then you have to fill out a form. Lastly, you have to pay a fee of $25 a day to set up a booth on campus.

W: That's not too bad. Do you think I could fill the form out right now? I can visit my dorm, pick up some samples, and return here with them in a few hours.

M: Sure. I've got a copy of the form right here on my desk.

Answer Explanations

1 Ⓒ The student and the man speak as though they know each other well. In addition, the man states, "Sure. You've mentioned that to me before a couple of times. I don't think I've ever seen anything you've made, but I know it's your hobby." So it can be inferred that the two of them are well acquainted.

2 Ⓐ At the end of the conversation, the student says, "Do you think I could fill the form out right now?"

B

Answers

1 Ⓒ 2 Ⓐ

| Script |

Listen to part of a conversation between a student and a professor.

M Student: Pardon me, Professor McClellan, but would it be all right if I borrowed a few moments of your time?

W Professor: This won't take too long, will it, Chris? I've got to attend a staff luncheon ten minutes from now.

M: This should only require two or three minutes, ma'am. I have a question about a couple of classes I'm considering taking next semester.

W: If that's the case, then I've got time to speak with you.

M: Great. Thanks so much.

W: All right, tell me: Which classes are you debating signing up for?

M: Well, I've got my entire schedule settled except for one class. I've narrowed it down to the following. Um, I'm either going to take German 1, uh, that's a basic German language class, or I'm going to take English 43, which is an introduction to Shakespeare class.

W: Hmm . . . Remind me again what your major is, please.

M: I'm double-majoring in Chemistry and Economics.

W: So neither class has anything to do with your major, right?

M: Yes, ma'am. I suppose I might travel to Germany one day, so that's a reason I'm contemplating learning German. But I don't need to study German for my foreign language requirement since I'm fluent in Italian. And I've always been interested in English literature, but I don't consider myself particularly well read.

W: So the Shakespeare class would be an opportunity for you to read some plays and to become better acquainted with his work, right?

M: That's correct. 🎧2 Oh, uh, just so you know, I'm not concerned in the least bit about what my grade in either class will be. I figure I can get at least a B in each class. Since there's no way I'm going to graduate with honors next year, taking a class that will give me an easy A isn't a major concern of mine. **I didn't take my classes seriously my freshman year, and now I'm paying for that.**

W: I understand. In that case, if I were you, I'd register for the language class. You can always read Shakespeare's works in your free time, but it would be much better to learn a foreign language in a classroom setting.

M: What you said makes a lot of sense. Thanks. Now I know exactly how my schedule is going to look.

Answer Explanations

1 Ⓒ The professor advises the student, "I understand. In that case, if I were you, I'd register for the language class. You can always read Shakespeare's works in your free time, but it would be much better to learn a foreign language in a classroom setting." So she implies that people ought to study foreign languages with an instructor.

2 Ⓐ When the student says, "I didn't take my classes seriously my freshman year, and now I'm paying for that," he implies that he got his lowest grades at school that year.

C

Answers

1 Ⓐ 2 Ⓑ

| Script |

Listen to part of a lecture in an ecology class.

M Professor: Fish is one of the main food sources for bears, and they have a particular love of salmon. In places where brown, black, and grizzly bears live, such as Alaska, Western Canada, and Kamchatka in Russia, there are countless rivers, streams, and brooks where salmon can be found. There are almost always trees growing alongside those sources of water, too. What might surprise you is that these three living things, uh, salmon, bears, and trees, have a very special relationship that helps each survive. Why don't we find out how . . . ?

Every year, salmon swim upriver to reach their traditional breeding and spawning grounds. Let's take a look at a video of them doing that . . . The salmon are swimming upstream here. Notice the tree-lined stream and the shady places where they're breeding and spawning . . . ? Well, um, that shade is a necessity, not a luxury. If salmon lay their eggs in unshaded spots, the sunlight will make the water temperature higher, and the eggs will have less of a chance of surviving. The reason is that in warmer water, the oxygen level is reduced, thereby negatively affecting the eggs. Now, do you see how the bed of this stream has plenty of gravel? Gravel is important because it supports the eggs in moving water. And that's how trees play a significant role. Without trees, there would be more erosion, which would leave rivers, streams, and brooks filled with silt, so there would be few—if any—places for salmon eggs to be laid without running the risk of being washed downstream and most likely failing to hatch.

Oh, but what about bears . . . ? Before salmon can even reach their breeding spots, they have to run a gauntlet of bears trying to catch them. And once they arrive at their destinations, there are even more bears waiting. As we can see in the video now . . . the bears like to grab the salmon, bite it once or twice, and then drag it onto land and eat it. But they don't eat the entire fish. They only eat the best parts, so they leave both flesh and bone behind. This, in turn, attracts other predators and insects, which consume the leftovers, but some of the remainder goes into the soil, which provides nutrients. And when the bears and other animals defecate, their nitrogen-rich feces get into the soil, which helps the trees grow.

So let's recap . . . Salmon need shade and gravel to lay their eggs. Trees provide shade and prevent erosion. Bears need salmon for food, and trees need nitrogen and other nutrients to grow, which they get from the salmon that bears kill. Thus all three help one another in key ways.

W Student: 🎧2 But surely there aren't enough bears to make that much of a difference.

M: **In point of fact, you'd be surprised.** A conservative estimate of just one species—the black bear—in the Canadian province of British Columbia is about 80,000. The average black bear eats 700 salmon per spawning season, and that provides the bear with about seventy percent of its yearly protein supply. Each bear contributes around twelve kilograms of nitrogen from dead salmon per hectare of forest in salmon breeding grounds. So, um, if we do the math, we'll discover that these 80,000 bears are putting nearly one million kilograms of nitrogen nutrients into the soil alongside rivers, streams, and brooks each year. One study has shown that more than half of the nitrogen that trees absorb in these regions comes from dead salmon.

Answer Explanations

1 Ⓐ The professor remarks, "Each bear contributes around twelve kilograms of nitrogen from dead salmon per hectare of forest in salmon breeding grounds. So, um, if we do the math, we'll discover that these 80,000 bears are putting nearly one million kilograms of nitrogen nutrients into the soil alongside rivers, streams, and brooks each year. One study has shown that more than half of the nitrogen that trees absorb in these regions comes from dead salmon." Thus it can be inferred that there would be fewer trees in some places without salmon.

2 Ⓑ When the professor responds to the student's comment by saying, "In point of fact, you'd be surprised," he is indicating that the student's opinion on the matter they are discussing is wrong.

D

Answers

1 Ⓑ 2 Ⓐ

| Script |

Listen to part of a lecture in a geology class.

W Professor: When we think of diamonds, images of beautiful, clear gemstones come to mind. But diamonds come in a variety of colors due to various impurities in them. They can be pink, yellow, red, and green, and there are even orange diamonds, too. Rarest of all is the black diamond, of which there are two kinds. Some are like regular diamonds yet have impurities making them black in color. These diamonds are rare but can be found in places where diamonds are normally unearthed, especially near areas that are or once were volcanically active. The second type of black diamond is called carbonado. Some Portuguese explorers in Brazil gave them this name in the mid-eighteenth century because of their similarity to black coal. At present, there are only two known sources of carbonado: the Central African Republic and Brazil.

I'd like to discuss the properties of carbonado with you for a bit. To begin with, carbonado doesn't always look like a diamond. It looks more like a rock, even when it's polished. It's not always pure black either but is instead more grayish-green in color. Carbonado isn't used as a gemstone much but is mainly useful to various industries. Remember that diamonds are the hardest known substances and score a ten on the Mohs scale of hardness. Carbonado is actually harder than regular diamonds due to its unique structure, which is a very dense crystal lattice of carbon, graphite, and diamond. So, uh, essentially, three substances combined to form a single one in the guise of carbonado.

How it was created is a matter of some debate in geological circles. You see, uh, it's not found in the typical places where diamonds are located. That, of course, is nearby seams of kimberlite in areas of volcanic activity. Most diamonds are produced deep within the Earth in a process requiring millions of years, but they aren't particularly old when compared to the Earth as a whole. After being formed, diamonds are then brought to the surface through volcanic activity. Carbonado is different though. You see, um, it's been dated at almost three billion—yes, billion with a B—years old. It's not found near volcanically active sites but is instead found near the surface and sometimes in sedimentary deposits near the outflows of rivers. As I just mentioned, it's found only in Brazil and parts of Africa. So . . . does anyone know what those two places were like three billion years ago?

M Student: Weren't they, uh, joined together as part of the supercontinent that used to be on the planet?

W: Bingo. You got it in one. This has led to two theories on carbonado's origin. First, some believe that a large meteorite crashed and hit the Earth where Africa and Brazil were joined. This massive impact caused a tremendous amount of heat and pressure to fuse the minerals that made carbonado. As for the second theory, some hypothesize that carbonado was created in space and arrived on the Earth on a meteorite. No, really. Don't scoff at the idea. It would go a long way toward explaining why we can't find this unique rock anywhere else on the planet. You should stop and consider that for a moment before you dismiss the theory. Okay, I've got some real carbonado up here, so why don't we take a close look at it?

Answer Explanations

1 (B) The professor comments, "Most diamonds are produced deep within the Earth in a process requiring millions of years, but they aren't particularly old when compared to the Earth as a whole. After being formed, diamonds are then brought to the surface through volcanic activity. Carbonado is different though. You see, um, it's been dated at almost three billion—yes, billion with a B—years old." In saying that, she implies that carbonado is much older than other types of diamonds on the Earth.

2 (A) At the end of the lecture, the professor tells the class, "Okay, I've got some real carbonado up here, so why don't we take a close look at it?"

Practice with Long Passages p. 74

A

Answers

1 (C) 2 Fact: [2], [3] Not a Fact: [1], [4]
3 (A) 4 (B)

| Script |

Listen to part of a conversation between a student and a housing office employee.

W1 Housing Office Employee: Hello. Is there something I can assist you with this morning?

W2 Student: I sure hope so. I'm here because I'd like to change dormitory rooms. Do you know if it's too late to do that?

W1: We're only one week into the fall semester, so it's still possible for you to move to another dormitory room.

W2: Great.

W1: However, you should understand that roughly 98% of all the dormitory rooms on campus are occupied, so don't expect to get your first choice.

W2: I understand that. I simply need to escape from the current situation I'm in.

W1: Why is that? Is there a problem with your room or your roommate?

W2: Both, actually.

W1: Why don't you tell me what the problem with each of them is in that case?

W2: Sure, I can do that. The issue with my room is quite simple. I'm a freshman here, so I didn't get to choose the dorm I'm currently living in. The school assigned me to live in Kenwood Hall, which is an absolutely awful dorm for a couple of reasons. To begin with, it's located on the easternmost part of campus, but I'm enrolled in the school of business, so most of my classes are on the far western side of the campus. It takes me more than twenty minutes to walk across campus to get to my classes.

W1: What's the other problem?

W2: Kenwood Hall is a huge party dorm. I mean, I think I'm the only person in the entire dorm that even tries to study. It's always loud, and I can't concentrate on my studies or get any sleep at night.

W1: Yeah, we've received similar complaints about that dormitory from other students. So, uh, what about your roommate?

W2: Ah, Rachel . . . I think she came here to have fun and not to study. I haven't seen her open a single book ever since classes began. She's constantly playing loud music, and she goes to bed very late at night. She and I have nothing in common, and I have to get out of my present situation before she ruins my semester.

W1: Yes, uh, it sounds like you're in a pretty bad situation. So should I guess that you'd like a dormitory which is closer to your business classes?

W2: Yes, that would be perfect. I was thinking of a place such as Patterson Hall or Martin Tower. Do there happen to be any rooms available in either of them?

W1: Yes, I believe there are a couple of vacant rooms in each. How about taking a look and seeing what your options are?

W2: Excellent. Let's see what you have available.

Answer Explanations

1 (C) The student cannot stand the dormitory that she is currently staying in.

2 Fact: [2], [3] Not a Fact: [1], [4]
About her dormitory, the student comments, "To begin with, it's located on the easternmost part of campus, but I'm enrolled in the school of business, so most of my classes are on the far western side of the campus. It takes me more than twenty minutes to walk across campus to get to my classes." She also notes, "Kenwood Hall is a huge party dorm. I mean, I think I'm the only person in the entire dorm that even tries to study. It's always loud, and I can't concentrate on my studies or get any sleep at night." However, she did not choose to live in it as she says, "I'm a freshman here, so I didn't get to choose the dorm I'm currently living in." And it is not true that it has many students eager to study living in it since she says, "I think I'm the only person in the entire dorm that even tries to study."

3 (A) The student complains about her roommate when she states, "Ah, Rachel . . . I think she came here to have fun and not to study. I haven't seen her open a single book ever since classes began. She's constantly playing loud music, and she goes to bed very late at night. She and I have nothing in common, and I have to get out of my present situation before she ruins my semester."

4 (B) At the end of the conversation, the employee says, "Yes, I believe there are a couple of vacant rooms in each. How about taking a look and seeing what your options are?" Then, the student agrees with her suggestion.

Dictation

1 I'm here because I'd like to change dormitory rooms.
2 I simply need to escape from the current situation I'm in.
3 Yeah, we've received similar complaints about that dormitory from other students.

B

Answers

1 (B) 2 Archaic Period: [1] Classical Period: [3], [4]
Hellenic Period: [2] 3 (A), (D) 4 (C)

| Script |

Listen to part of a lecture in an archaeology class.

M Professor: During the time of ancient Greece and Rome, coins dominated the economies of the Mediterranean world. Since Greece is the older of the two, I'd like to examine its coinage first. The history of Greek coins can be divided into three periods: the Archaic Period, the Classical Period, and the Hellenic Period. The first period lasted from approximately 700 B.C. to 479 B.C., which was when the Classical Period began. The Classical Period didn't end until the Macedonian conquests of Alexander the Great in 336 B.C., which heralded the Hellenic Period. It lasted until the Roman expansion.

The Greeks first minted coins around 700 B.C. These early coins were made of electrum, which is an alloy of silver and gold. The coins had some markings indicating both who had made them and what their values were. Later, the Greeks developed coin punches, which could make more elaborate designs with images on both sides. Following that, they created superior etched coin molds, which made the best designed coins. Around 560 B.C., the Greeks began minting gold and silver coins for the first time. These coins had different denominations and were widely used. The gold coin was called the *slater* and the silver coin the *siglos*. Soon, nearly every Greek city-state began making similar coins but with different images, uh, depending on where the coins were minted.

During the Classical Period, the coins of Athens predominated. The main Athenian silver coin was called the *tetradrachm*. A lesser coin was called the *drachmae*. Four of them made a *tetradrachm*. Over the next century and a half, Athenian coins spread far and wide, and, when the Macedonians conquered Greece, they adopted the Athenian coins and used them during the Hellenic Period. During Alexander the Great's conquests, the *tetradrachm* had an image of Hercules on one side and Zeus on the other. As Alexander's armies Hellenized the Near East, their coins accompanied them.

W Student: What happened to the Greek coins after Alexander died?

M: Hmm . . . Alexander died in 323 B.C., and his empire was divided amongst his generals. For the most part, those generals established their own kingdoms and minted their own coins. We still consider them to be a part of the Hellenic Period since they were Greek coins, but the Romans began dominating the region soon afterward.

As for the Romans . . . Roman coinage started around the fourth century B.C. Their first coins were made of bronze, were rough in shape, and were called the *aes rude*. By the third century B.C., the rounder *aes grave* had become the standard coin. It was a heavy bronze coin that would become reduced in size over time. These bronze coins had marks showing their value as well as carved images. Different cities in Italy issued their own bronze coins. It was around the time of the Punic Wars, in 241 B.C., that the Romans first minted silver coins. The main silver coin was the *denarius*, and it remained the standard Roman coin until the third century A.D. Another silver coin, called the *sestertius*, was issued from time to time during the Roman Republic but, uh, was never as widely used as the *denarius*. The Romans also minted a gold coin, called the *aureus*, during the Republic years. It was worth twenty-five *denarii*.

Roman minting technology closely followed the Greek style as there was a strong connection between the two regions. Initially, the Romans minted images of animals and their gods on their coins. When Julius Caesar came to power in 45 B.C., he issued coins with his own image on them. He was the first person to do so, but his actions became a tradition followed by Roman emperors for

centuries to come. The reverse sides of the coins were often used to show off images of the great achievements of either the Roman Empire or the emperor himself. As Rome expanded, its coins gradually spread all across the empire.

Now, I've got a small collection of Greek and Roman coins I'd like to show to you. Everyone come up here to the front and gather around, but be sure not to touch any of the coins as they're quite old.

Answer Explanations

1 (B) The professor focuses on the history of coins in the ancient world in his lecture.

2 Archaic Period: [1] Classical Period: [3], [4]
Hellenic Period: [2]
About the Archaic Period, the professor states, "The first period lasted from approximately 700 B.C. to 479 B.C.," and then he mentions, "Around 560 B.C., the Greeks began minting gold and silver coins for the first time." As for the Classical Period, he remarks, "The Classical Period didn't end until the Macedonian conquests of 336 B.C.," as well as, "During the Classical Period, the coins of Athens predominated." Regarding the Hellenic Period, he notes, "The Macedonian conquests of Alexander the Great in 336 B.C., which heralded the Hellenic Period," and he continues by saying, "Alexander died in 323 B.C., and his empire was divided amongst his generals. For the most part, those generals established their own kingdoms and minted their own coins."

3 (A), (D) The professor tells the class, "Initially, the Romans minted images of animals and their gods on their coins."

4 (C) The professor says, "Now, I've got a small collection of Greek and Roman coins I'd like to show to you. Everyone come up here to the front and gather around, but be sure not to touch any of the coins as they're quite old."

Dictation

1 Since Greece is the older of the two, I'd like to examine its coinage first.

2 What happened to the Greek coins after Alexander died?

3 As for the Romans . . . Roman coinage started around the fourth century B.C.

iBT Practice Test p. 78

Answers

1 (B)	2 (A)	3 (C)	4 (A)	5 [1], [2]
6 (B)	7 Fact: [2], [3] Not a Fact: [1], [4]		8 (B)	
9 (D)	10 (B)	11 (A)	12 (A)	13 (A)
14 (C)	15 (B)	16 (C)	17 (D)	

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and a professor.

M Student: Thank you very much for agreeing to be my thesis advisor for the coming year, Professor Haynes.

W Professor: It's my pleasure, Jason. You've taken several classes with me ever since you arrived here, and you've not only excelled in them but have also proven to be an impressive scholar. I'm looking forward to assisting you with your research during your senior year.

M: Thanks for saying that, ma'am.

W: So . . . have you given any thought regarding what you want to do your senior thesis on?

M: I'm thinking of doing it on some of the ancient cultures that once lived in West Africa.

W: Hmm . . . That would be an interesting topic. May I ask why you're choosing it?

M: Sure. Last summer, my parents and I traveled to Africa. We sailed up the Niger River for a couple of weeks and visited Timbuktu and some other sites of ancient African empires. I was, uh, I was totally fascinated by what I saw and learned there. When I returned home, I tried to find a few books on ancient African cultures and empires, but, well, there wasn't all that much available.

W: There's not a lot of scholarship available in English, but there is much more in French. You don't happen to speak French, do you?

M: I've studied it for four semesters, and I spent six weeks in France during the summer after my freshman year. So, uh, while I wouldn't say I'm fluent in the language, I do have a decent understanding of it.

W: All right. Well, you're going to be doing the bulk of your research in French, so I suggest that you take an intensive course in the French language this summer. Are you planning to remain on campus again this summer?

M: Yes, I'll be working in the library like always. I guess I could take a night class in French if one is being offered here.

W: Good. Find out about that. If you can't take a class here, you can study at the Paris Institute downtown. The prices there are fairly inexpensive, and the teachers are highly dedicated and effective.

M: Thanks for the tip.

W: You'll also need to start doing research this summer. I can put together a list of books you ought to read. Most of them will be general books about West Africa and some of the kingdoms and empires which thrived in that area. You should read them and then find something specific to focus on for your thesis topic.

M: Okay. Since the library is quiet in summer, I should be able to read a great deal while I'm working.

W: Good. Furthermore, I encourage you to speak with Professor Mankins in the History Department.

M: Who is he?

W: He's new. He was hired this semester. His expertise is African history, so he might be able to give you some assistance.

M: Okay. I'll set up a meeting with him.

W: I know him well, so let me contact him first. I'll tell him about you and ask if he'd be willing to give you some advice.

M: Thanks.

W: It's no problem. I'll email him after lunch, and, once he responds to me, I'll call you. Now, uh, let me think about which books you need to read. I'll come up with a list of authors and titles and email them to you no later than six this evening.

M: Thanks so much, Professor Haynes. I really appreciate everything.

Answer Explanations

1 **Gist-Content Question**

(B) The speakers are mostly talking about how the student needs to prepare for a project that he will do in the future.

2 **Making Inferences Question**

(A) The professor implies that the student needs to improve his skills in the French language when she says, "Well, you're going to be doing the bulk of your research in French, so I suggest that you take an intensive course in the French language this summer."

3 **Understanding Attitude Question**

(C) The professor remarks, "If you can't take a class here, you can study at the Paris Institute downtown. The prices there are fairly inexpensive, and the teachers are highly dedicated and effective."

4 **Understanding Function Question**

(A) The professor talks about Professor Mankins to let the student know that he might be able to provide the student with assistance on his thesis.

5 **Detail Question**

[1], [2] The professor tells the student, "I'll email him after lunch, and, once he responds to me, I'll call you. Now, uh, let me think about which books you need to read. I'll come up with a list of authors and titles and email them to you no later than six this evening."

Lecture #1 [6–11]

| Script |

Listen to part of a lecture in an education class.

W Professor: Learning is something we all start doing from the time we're young children. I'd even go as far as to state that it's a process that never ends throughout our entire lives. How we learn depends upon numerous factors; however, for the most part, there are seven basic methods. They are, um, visual, aural, verbal, physical, logical, social, and solitary. Everyone learns in one or more of these ways, yet some students may prefer one to another, and some may be strong in certain styles but not in others. Let's look at each of them in turn.

Visual learning refers to the use of all forms of images to learn. Students who prefer the visual style of learning tend to use images to absorb information. These individuals have a good understanding of colors and shapes and have good spatial awareness. They like to read and usually have well-developed handwriting, yet they also struggle in some ways. For instance, if you tell them how to do something but don't give them a visual demonstration, they may not understand how to do it. They can also remember faces, uh, but not names, they're easily distracted, and they must look at people directly when speaking to others. When you're teaching children who prefer the visual style, you should be sure to use flashcards, colored blocks, and written directions, and you also need to speak to these students face to face.

Aural learning . . . um, that's A-U-R-A-L rather than O-R-A-L, by the way . . . is related to listening. Individuals who prefer this style are more talkative and social and often do better in music and performing arts such as

acting. As for the drawbacks, some students struggle with written directions, have trouble staying quiet for long periods, and remember names but not faces. When teaching these types of learners, you'd be better off using verbal instructions and having your students read them aloud, and you could also utilize music to help your students learn.

Verbal learners learn best by using the written word. They like reading and writing, prefer to read instructions and write reports, and absorb information by reading books. They struggle when given oral instructions, don't fully understand body language, and may have difficulty in social situations. To help these kinds of learners, you need to let them take lots of notes while studying. You also ought to write instructions on the board in class, give your students writing assignments, and not place much emphasis on oral reports. You should additionally have resources in your classrooms such as dictionaries and thesauruses.

11 What about physical learners . . . ? Well, they like moving about while they learn. They . . . um, yes? Question?

M Student: **Our textbook calls physical learning, um, the kinesthetic learning style, so, um, which of these two terms would you like for us to use?**

W: Ah, both of them are correct, so you all can use whichever term you prefer. Okay . . . ? Good . . . Let's see . . . Physical learners like touching and using things as well as exploring the environments they're in while learning. They don't want to sit still, listen, read, or write. They also often don't like getting instructions but instead prefer to jump in, try to do something themselves, and figure out how to do it on their own. They excel at sports and performing arts, may struggle to control themselves, and tend to lash out physically when they're upset. To help these learners, we, as teachers, must let them do things on their own before providing instructions. We also ought to have plenty of hands-on learning tools in our classrooms, do plenty of physical activities, plan outdoor lessons, and have these students play games or do projects.

The logical style of learning relates to mathematics. These learners can easily see patterns and make connections between things that seem unconnected. These students like solving problems in a systematic way, step by step, and using a schedule. Such students are good at explaining things with examples and statistics and can easily see the mistakes other people make. One of their weaknesses is that they have a need to point out these mistakes, which may upset others. These learners excel at math and the sciences. The best way to teach them is to help them explore by doing logic games, difficult math problems, and science experiments and by encouraging the learning of strategy games such as chess.

Learners may possess elements of one or two or perhaps all five types of learning. For example, I myself am more of a verbal and logical learner but am quite weak in the visual and physical areas of learning. Oh, yes, there are two other learning areas that most people fit into. Some people are social learners while others are solitary ones. Social learners prefer the company of others, and solitary learners like being left alone. At schools, many teachers emphasize group work so that students can build their social skills. In my experience, visual, aural, and physical students tend to prefer group work because they enjoy socializing. Verbal and logical learners, on the other hand, prefer working by themselves.

Answer Explanations

6 **Gist-Content Question**

Ⓑ The lecture is about the various styles of learning that students have.

7 **Detail Question**

Fact: 2, 3 Not a Fact: 1, 4
About visual learners, the professor remarks, "They can also remember faces, uh, but not names, they're easily distracted, and they must look at people directly when speaking to others. When you're teaching children who prefer the visual style, you should be sure to use flashcards, colored blocks, and written directions, and you also need to speak to these students face to face." However, they are not talkative or social, and they do not like taking large amounts of notes in their classes.

8 **Detail Question**

Ⓑ About physical learners, the professor declares, "Physical learners like touching and using things as well as exploring the environments they're in while learning. They don't want to sit still, listen, read, or write. They also often don't like getting instructions but instead prefer to jump in, try to do something themselves, and figure out how to do it on their own."

9 **Understanding Function Question**

Ⓓ The professor says, "Learners may possess elements of one or two or perhaps all five types of learning. For example, I myself am more of a verbal and logical learner but am quite weak in the visual and physical areas of learning."

10 **Making Inferences Question**

Ⓑ Throughout the lecture, the professor talks to the students as if they will be teachers in the future. She makes comments such as, "When you're teaching children who prefer the visual style, you should be sure to use flashcards, colored blocks, and written directions, and you also need to speak to these students face to face," and, "When teaching these types of learners, you'd be better off using verbal instructions and having your students read them aloud, and you could also utilize music to help your students learn."

11 **Making Inferences Question**

Ⓐ When the student asks the question about physical learning and kinesthetic learning, it can be inferred that he does not know which of the two terms is correct.

Lecture #2 [12–17]

| Script |

Listen to part of a lecture in an architecture class.

M Professor: One of the goals in building design is to make each building extremely efficient. There are two main purposes in doing this: to reduce costs during the construction process as well as during the lifetime of the building and to reduce the energy needs of the building while maintaining an ecologically sound environment. These two goals go hand in hand, for by making a building energy efficient, future costs will be lowered while less harm will be caused to the environment.

16 **Let me emphasize that planning is the key to efficient building design.** The architect and the building owner must see eye to eye on all matters during the design phase. Communication must be open between the two sides to avoid any misunderstandings, so all targets and objectives have to be clearly stated during every phase of design. When it comes time to build a structure, the same is true for the relationship between the architect and the construction team.

The first thing that must be considered in any new building project is the building site. How much harm the new building will cause to the local environment is a key point. Care must be taken to avoid damage to the soil and nearby water resources. There must be a good local source of electricity and water for the building, and it should be located near transportation hubs so that the people who eventually use the building can get to and from it with ease. As for parking, underground parking garages are the preferred mode these days as large outdoor parking lots disrupt the greenery around the building. An eye to future landscaping must be taken into consideration when planning the building. Greenery, which includes lawns and trees, is more pleasing and can additionally act as a, um, as a cooling agent since concrete parking lots absorb large amounts of heat, which contribute to the urban heat island problem we studied the other day.

The position of the building is another factor since it should be situated to receive the maximum amount of sunlight, thereby lowering energy costs. A building with large windows facing the sun for most of the day lets in more light and heat and reduces the need for artificial light and heat sources. Moreover, sunlight is important if the building depends on solar energy for power. Proper sealing and ventilation are vital, too, because you want to keep heat in, but you don't want too much moisture to build up inside a building due to poor ventilation. Such moisture can result in mold damage, so efficient ventilation systems are crucial. Buildings should use good air filters to reduce the amount of pollution entering them as well.

Yet another consideration is the wind. A building should be designed so that it doesn't cause irregular wind patterns to flow around it. Buildings placed too close to other ones can cause a canyon effect, uh, where winds howl through the spaces at great speeds and bother pedestrians. I'm sure anyone who has been in a large city has experienced practically being knocked down by a sudden gust of wind coming from around a building. The building must be strong enough to withstand the most extreme wind speeds a region experiences. Furthermore, you must be sure to consider rain and snow when designing a building. Rooftops need be able to handle the accumulation of snow lest they collapse after heavy snowstorms, and they should also have places for rain to run off. Nowadays, one trend is to have rain capture systems that can collect rainwater to use in waste removal systems in buildings.

Another factor in building design efficiency is to utilize low-impact materials, which are ones that have a minor effect on the environment while being produced and additionally cause little harm to it in the future if they ever become waste materials. So, um, I'm talking about nontoxic materials, and I'm talking about using recycled materials to make buildings. 17 Plastic, wood, and metal can all be recycled and used in new buildings, and this is good for the environment.

W Student: Are you sure about that? **I was under the impression that recycled materials aren't as strong as new materials.**

M: That may be true for some materials, but it isn't always the case. Recycled materials that meet building codes can be safely used to make buildings. But keep this in mind: As architects, we should never forgo safety when designing buildings just to save a few dollars or to say that we're protecting the environment. So, um, it's good to use recycled materials, but always make sure that they're

strong enough for the building you're working on.

All right, now that I've told you several ways to make a building more efficient, I think it's time for us to look at a few examples in depth. The first we're going to examine is a remarkable building in Sydney, Australia, called One Central Park. It has some amazing hanging gardens that are an innovative utilization of greenery and which make it an environmentally conscious building. Take a look up here as I show you a few pictures and point out some interesting aspects of its design.

Answer Explanations

12 Gist-Content Question

Ⓐ The professor spends most of the lecture telling the students how to make buildings more efficient.

13 Understanding Organization Question

Ⓐ The professor comments, "Greenery, which includes lawns and trees, is more pleasing and can additionally act as a, um, as a cooling agent since concrete parking lots absorb large amounts of heat, which contribute to the urban heat island problem we studied the other day."

14 Detail Question

Ⓒ About low-impact materials, the professor points out, "Another factor in building design efficiency is to utilize low-impact materials, which are ones that have a minor effect on the environment while being produced and additionally cause little harm to it in the future if they ever become waste materials. So, um, I'm talking about nontoxic materials, and I'm talking about using recycled materials to make buildings."

15 Understanding Attitude Question

Ⓑ About One Central Park, the professor states, "The first we're going to examine is a remarkable building in Sydney, Australia, called One Central Park. It has some amazing hanging gardens that are an innovative utilization of greenery and which make it an environmentally conscious building."

16 Understanding Attitude Question

Ⓒ When the professor says, "Let me emphasize that planning is the key to efficient building design," he means that it is important to plan buildings properly in order for them to be efficient.

17 Understanding Function Question

Ⓓ When the student makes her comment, she implies that she does not want to use recycled materials in the construction of buildings since she believes they are not as strong as new materials.

Practice with Short Passages p. 88

A

Answers

1 Ⓑ 2 Ⓓ

| Script |

Listen to part of a conversation between a student and a professor.

M Student: Hi, Professor Wilkinson. Um, do you think I could, uh, I could come in for a minute? I have something that I, uh, I'd like to talk about.

W Professor: Of course, you can. Please have a seat over there.

M: Thanks so much.

W: My pleasure. Now, um, what's on your mind?

M: I'm a student in your History 42 class. It's kind of big, so you probably don't know who I am. My name is Peter Hampton.

W: Nice to meet you, Peter. I've noticed you in class since you always make a point of sitting in the front row, but, uh, because I don't call roll and we haven't had any tests or assignments yet, you're right . . . I haven't learned your name yet, so thanks for letting me know.

M: Um, my pleasure, ma'am. Anyway, um, I'm here because I was kind of confused about your lecture in class today.

W: Which part of it didn't you understand?

M: 🎧2 It was the part when you spoke about the Fourth Crusade. I guess, uh, I guess what happened between the Venetians and the Byzantines was a bit too confusing for me. I wonder if you could explain to me exactly what happened.

W: **Well, unfortunately, I've got to head to my next class in about two minutes.**

M: Oh, then I suppose I'd better get going in that case.

W: Hold on a second, Peter. While I don't have enough time to rehash my lecture for you, let me give you some reading material. If you look at it, you should be able to understand exactly what happened in the Fourth Crusade. And by that, uh, I mean that you'll understand what happened in the fifty or so years before the crusade began, what happened during the Fourth Crusade itself, and what the results of the crusade were.

M: Awesome. Thanks. So, uh, what books should I read?

W: Here's a list . . . You want to read this book by Norwich here . . . I can't recall what chapter the information is in, so you'll have to use the index. And this book, um . . . here by Runciman is outstanding. If you read both, you'll have a complete understanding of that period in history.

M: Thanks so much, Professor Wilkinson. You've been a tremendous help.

W: You're welcome, Peter. I'll see you in class on Thursday.

Answer Explanations

1 Ⓑ The professor tells the student, "While I don't have enough time to rehash my lecture for you, let me give you some reading material. If you look at it, you should be able to understand exactly what happened in the Fourth Crusade. And by that, uh, I mean that you'll understand what happened in the fifty or so years before the crusade began, what happened during the Fourth Crusade itself, and what the results of the crusade were."

2 Ⓓ When the professor tells the student that she has to go to her class in a couple of minutes, it can be inferred that she does not have time to comply with the request that the student makes.

B

Answers

1 Ⓐ 2 Ⓒ

| Script |

Listen to part of a conversation between a student and a student employment center employee.

W Student: So, um, what do you think of the résumé I've written?

M Student Employment Center Employee: Hmm . . . It's fairly well done overall. However, there are a number of places where you could make improvements that would help you tremendously in trying to secure an interview.

W: Yeah? What do you think I should change about it?

M: 🎧2 To begin with, your résumé should be a single sheet of paper rather than the two pages you've got here.

W: Just a single page? B-b-b-but . . . I've got so many accomplishments that I need two pages to let companies know about them.

M: **That's what you might think, but the people who will be reading your résumé won't see it that way.** They'll most likely simply toss your two-page résumé in the trashcan without even reading it.

W: Why would they do that?

M: First, you haven't even graduated yet, so there is absolutely no way you have two pages of worthwhile accomplishments to list. Second, the ability to be concise is highly desired by the people doing the hiring. Tailor your résumé so that it points out the accomplishments, skills, and experiences that are relevant to the job for which you're applying. That will result in a much more focused document.

W: Um . . . If I did that, I might have to write three or four different versions of my résumé.

M: So? You want a job, don't you?

W: Ah, yes, I see your point. In that case, what else do you believe I should do?

M: I've got a paper prepared which explains how to write a good résumé. The things you need to improve upon are all covered in the list, so how about studying it on your own time? Right now, I'd like to focus on the interview process with you.

W: That's fine.

M: Now, have you ever had a job interview before?

W: Yes, I have. It was for a job at a fast-food restaurant I applied to work at around, uh, six years ago when I was in high school. Would you like me to tell you how it went?

M: Yes, I would. Even though you might not realize it, that experience will be extremely helpful to you in the interviews you do in the coming months.

Answer Explanations

1 (A) The man says to the student, "I've got a paper prepared which explains how to write a good résumé. The things you need to improve upon are all covered in the list, so how about studying it on your own time?"

2 (C) The student protests what the man says, and then he responds by saying, "That's what you might think, but the people who will be reading your résumé won't see it that way." In stating that, he is expressing his disagreement with the student's opinion.

C

Answers

1 (D) 2 (B)

Script

Listen to part of a lecture in a physics class.

M1 Professor: Electricity is a natural phenomenon that we've harnessed to use in countless ways, one of which is to produce light. In its natural state, it's capable of producing light as we can see when lightning flashes in the sky. The question I'd like to answer right now is the following: How can we make a controlled form of light from electricity? The method of doing this was well known in the nineteenth century, but that theory couldn't produce a working device until Thomas Edison developed the first practical incandescent light bulb in 1879.

The basics of a light bulb are quite simple. Basically, uh, electricity passes through a filament, that is, a thin wire, inside an enclosed glass bulb. Edison used carbon filament wires, but the wires in today's light bulbs are made of tungsten, which is more resistant to heat. In addition, tungsten wires produce brighter light and last longer. As electricity flows through the filament, it meets resistance, which it fights, resulting in the filament turning white hot. The filament, however, does not burn up completely. Instead, both heat and light are produced. The filament is enclosed in a glass bulb that either lacks air or contains an inert gas such as argon, so it doesn't catch on fire or cause the oxidation of the tungsten filament. The light bulb will continue to produce light until the filament burns out, which eventually happens to every light bulb.

Now, uh, that's a relatively simple explanation of what happens. The physics behind it, however, is a bit more complex. Light is a type of energy that atoms release. It comes in the form of particles called photons. Each light photon comes from an excited electron. When electricity meets resistance in the tungsten filament, the atoms in the tungsten absorb more energy. The electrons in each tungsten atom become more energized and then return to a weaker state of energy while the excess energy is cast off the electron in the form of light photons.

M2 Student: Pardon the interruption, but how do the electrons get more energy?

M1: I was about to explain that. The principle behind this energy increase is called Joule heating. That's spelled J-O-U-L-E with a capital J. It's named after English scientist James Joule, who discovered it in 1841. The principle states that when the moving particles in an electric current interact with the atom in the substance that the current is moving through, it will result in resistance. As the electrons in the electric current collide with the atoms in the substance, the electrons give up some of their energy. This energy is absorbed by the electrons in the atoms of the substance the current is passing through. 🎧2 It just so happens that carbon can absorb a lot . . . Wait a minute. I'm sorry. **I didn't mean to say carbon; I meant to say tungsten.** So, uh, tungsten can absorb a lot of this energy without burning up. As the atoms grow excited, they move into higher orbits around the nucleus of the atom. But this happens briefly. Then, the electrons return to their normal positions, and the excess energy gets released as light photons.

Interestingly, only around six percent of the electricity passing through the filament produces light. The rest produces heat, which is mostly wasted since light bulbs can't warm anything more than a couple of feet away from them. The tungsten wire in a typical light bulb is heated to more than 2,000 degrees Celsius whenever you turn it on. Impressive, isn't it?

Answer Explanations

1 (D) The professor focuses on how tungsten filament is better than carbon filament in saying, "Edison used carbon filament wires, but the wires in today's light bulbs are made of tungsten, which is more resistant to heat. In addition, tungsten wires produce brighter light and last longer."

2 (B) When the professor makes that statement, he is correcting a speaking mistake that he made when he said "carbon" when he should have said "tungsten."

D

Answers

1 (C) 2 (A)

Script

Listen to part of a lecture in an art history class.

M Professor: The next painting we need to examine is this one . . . Does anyone know who painted this . . . ? Nobody wants to guess . . . ? Okay. It's *Girl with a Pearl Earring*, and it was painted by Dutch master Johannes Vermeer. He painted this oil on canvas around 1665. This work is an example of a tronie . . . that's T-R-O-N-I-E . . . which was commonly done by Dutch artists in the seventeenth century. A tronie is typically a head or a head and upper body painting that's stylized or exaggerated so as to make it appear grotesque or comical. A tronie isn't exactly a portrait as it's not intended to show a recognizable person; hence one of the mysteries of this painting is, uh, who exactly the girl with the pearl earring is.

But before we attempt to answer that question, let's examine the work in more detail, shall we . . . ? First, I'll tell you a bit about its background. At present, the work is a deep, dark black color, but Vermeer intended it to have a translucent green glaze. As you can see up here on the screen, that has faded away. A detailed analysis of the painting indicated that the glaze went on top of the darker background, uh, where it was perhaps intended to provide a sharp contrast with the girl's pale skin tones. Vermeer likely used the dark background since it enabled him to show the girl in a sharper three-dimensional form. It worked, didn't it? Notice how the girl practically appears to be here in the room with us and looks as if she's about to say something.

Let's examine the girl . . . She's obviously Caucasian . . . Her clothing suggests a Middle Eastern influence. The most obvious aspect is the turban wrapped so snuggly around her head that we can't see a hint of her hair color. The blue band with the yellow knot on top here . . . and the long, trailing yellow piece over her back here . . . give her the appearance of blond hair though. 🎧1 Turbans weren't common headgear in the Netherlands during Vermeer's time, so most art historians speculate he got the idea from Michael Sweerts' painting *A Boy in a Turban Holding a Nosegay*. Here it is side by side with Vermeer's work . . . **The paintings by Vermeer and Sweerts are so similar in composition that some people mistakenly believe the same artist painted them.**

The other main object in *Girl with the Pearl Earring* is the pearl itself. It's ovoid in shape, not round . . . giving it a weighty appearance. Such a large pearl would have been expensive, uh, both then and now, so perhaps she didn't actually wear a pearl earring while posing. Or perhaps it was a smaller pearl or an earring made of something else. Knowing Vermeer's skill, it's possible he merely painted the pearl by using his imagination.

The big mystery, of course, is who the model is. 🎧2 A recent book and movie suggest that she was a serving girl named Griet, who lived with the Vermeer family, yet there's no historical evidence to support this claim. Yes, Judy?

W Student: I read somewhere that it's Vermeer's daughter Maria.

M: That's a distinct possibility, but, um, again, there's no evidence. **Maria would have been around twelve when**

this painting was done, and most critics, uh, as well as I, agree that the girl in the painting is a bit older than that. A third candidate is Magdalena, the daughter of Vermeer's patron Pieter van Ruijven. Still, there's no firm evidence, so it's likely that we'll never know for sure who she really is.

Answer Explanations

1 Ⓒ In making that statement, the professor implies that Vermeer and Sweerts used similar painting styles since "The paintings by Vermeer and Sweerts are so similar in composition that some people mistakenly believe the same artist painted them."

2 Ⓐ The professor casts doubt upon the student's suggestion when he makes his comment regarding who the girl in the painting really is.

Practice with Long Passages p. 92

A

Answers

1 Ⓒ 2 Ⓓ 3 Ⓓ 4 Ⓑ

| Script |

Listen to part of a conversation between a student and a professor.

W1 Professor: I took a look at the class schedule you want for next semester, Catherine, and everything looks fine to me.

W2 Student: I'm glad you approve of the classes I'm taking. But I'm curious: Do you think it's going to be too hard for me to take three classes in my major?

W1: Well . . . it's fairly unusual, but it can be done, so I wouldn't worry very much about it. However, there's one thing you definitely ought to be aware of.

W2: What's that?

W1: You realize, don't you, that you're not going to be able to graduate in four years?

W2: I'm not?

W1: Catherine, you're going to be starting the first semester of your junior year in the fall, and you have so far taken a grand total of one . . . just one . . . class in your major.

W2: Well, uh, the reason is that I switched majors this semester. I had originally been in the Physics Department, but I didn't enjoy studying that subject, so I decided to make the move to Art History this semester. So, uh, that's why I've only taken one class.

W1: Right. I understand exactly what happened since we've covered this topic before. However, have you taken a look at the requirements for Art History majors? Do you know how many classes and what types of classes you need to get a major in it?

W2: Er . . . I looked at the requirements a few weeks ago, but I can only, uh, vaguely remember them. Anyway, they can't be that hard, can they? I'm sure I can handle them.

W1: I too believe you can, uh, handle them, as you just said, but you can't do everything in four semesters. It's simply an impossible task.

W2: Why is that?

W1: You need to take a total of twelve Art History classes to begin with. So that means you would have to take three classes during three of the next four semesters and two in the other one. However, you also need to take some required classes in math, a foreign language, economics, and science. And, uh, in case you don't know—which I'm pretty sure is the case here—you need to take a couple of history and literature classes as an Art History major.

W2: Um . . . I wasn't aware of that.

W1: Yes, that's what I assumed. So you're basically going to have to spend another year here to be able to graduate as an Art History major.

W2: Isn't there anything I can do to graduate in four years?

W1: Hmm . . . If you're willing to stay here and take summer school classes during both sessions for the next two years, then, yes, you could possibly avoid staying here for a fifth year. But you'd have to plan your schedule very carefully.

W2: **Would you mind showing me what classes I'd need to take during the summer terms and in my junior and senior years?**

Answer Explanations

1 Ⓒ The professor tells the student, "You can't do everything in four semesters. It's simply an impossible task."

2 Ⓓ The student tells the professor, "Well, uh, the reason is that I switched majors this semester. I had originally been in the Physics Department, but I didn't enjoy studying that subject, so I decided to make the move to Art History this semester."

3 Ⓓ While telling the student about the courses that she will need to take, the professor also mentions, "And, uh, in case you don't know—which I'm pretty sure is the case here—you need to take a couple of history and literature classes as an Art History major." When she makes that comment, it can be inferred that she believes that the student has not done enough thinking about her future and how she is going to graduate.

4 Ⓑ When the student asks the professor that question after the professor states, "If you're willing to stay here and take summer school classes during both sessions for the next two years, then, yes, you could possibly avoid staying here for a fifth year. But you'd have to plan your schedule very carefully," the student implies that she does not want to stay at school for her fifth year but would instead prefer to graduate in only four years.

Dictation

1 However, there's one thing you definitely ought to be aware of.

2 The reason is that I switched majors this semester.

3 So that means you would have to take three classes during three of the next four semesters.

B

Answers

1 Ⓑ 2 Ⓐ 3 Forming Biofilms: 2, 4
Consuming Unusual Food Sources: 3 Going Dormant: 1
4 Ⓒ

| Script |

Listen to part of a lecture in a biology class.

W Professor: Bacteria are single-celled organisms found everywhere on the Earth. And when I say everywhere, I mean it. I'm not exaggerating in the least bit. Bacteria are unlike any other organism in that they're the one form of life which can survive virtually anywhere. **They are found in all environments, from freezing cold places in Antarctica to the intense heat of the Sahara Desert to areas beneath the surface in the deepest, darkest parts of the oceans.** This ability to survive has enabled them to thrive for millions of years and also to play a profound role regarding life on the planet.

There are three main ways that bacteria manage to survive in extreme environments. They are, um, by forming biofilms, by availing themselves of unusual food sources, and by going dormant. Let me tell you about each in turn. Forming biofilms is the most common method bacteria employ. Biofilms are massive colonies of bacteria that join together when they endure some kind of stress. These colonies can be found almost anywhere. For instance, there are many kinds of bacteria in our bodies. Some are in the digestive system, which is extremely acidic. But by forming biofilms, bacteria avoid being killed. When formed into complex biofilms, bacteria can create new pathways that allow them to consume food and to remove waste matter in more effective ways. That allows them to endure whatever stress they are under. Naturally, many bacteria die, but others survive. That's actually good for humans since our bodies require some bacteria to digest food.

M Student: But what about *E. coli* and other similar bad bacteria?

W: Well, sure, *E. coli* can sicken people so much that they die, but there are scientists working on ways to destroy the ability of some bacteria to form biofilms. With luck, their efforts will meet with success in the near future.

What about the second way bacteria survive . . . ? Again, they find food sources in unusual locations. It was long believed that all life forms received their food needs from the sun and photosynthesis. Plants use photosynthesis to make food, and many animals consume plants. Others, of course, consume animals. But deep underneath the ocean's surface, there's no sunlight, so it was once believed that no life could survive there. Then, in the 1970s, deep-sea explorers discovered hydrothermal vents, which are areas where hot water gushes up from the ocean floor. Around those vents, uh, they found numerous life forms. Later examinations determined that many of those creatures were feeding on sugars that were produced by bacteria. The bacteria were utilizing a chemical form of photosynthesis by extracting sulfur from the hot water, processing it, and making sugar that enabled both them and the other life there to survive.

The third way bacteria endure extreme environments is by going dormant for extended periods of time. Bacteria can survive with the bare minimum of the necessities of life only to grow in tremendous numbers when the opportunity arises. Do you remember when the oil platform exploded in the Gulf of Mexico a few years ago? Well, a great amount of oil was spilled into the ocean. It turns out that there was a tremendous increase in bacteria blooms all around the oil platform. The bacteria had been lying dormant on rocks on the seabed, but, due to the sudden influx of oil, the bacteria became active. Researchers discovered that the bacteria survived by processing methane from oil to make food. They also

learned that the bacteria has a gene permitting it to live in low-oxygen, low-food environments for very long times.

M: Does that mean that some bacteria could survive on other planets?

W: That's an interesting question. So far, we haven't found any signs of bacteria anywhere other than the Earth, but, uh, that doesn't mean they aren't there. I suppose it's possible—maybe even probable—that bacteria exist elsewhere, but we probably won't know for sure until we send astronauts to other celestial bodies.

Answer Explanations

1 (B) The professor mostly focuses on the manner in which bacteria manage to survive in extreme environments.

2 (A) When the student asks a question about *E. coli*, the professor talks about it by stating, "Well, sure, *E. coli* can sicken people so much that they die, but there are scientists working on ways to destroy the ability of some bacteria to form biofilms. With luck, their efforts will meet with success in the near future."

3 Forming Biofilms: 2, 4
Consuming Unusual Food Sources: 3
Going Dormant: 1
About forming biofilms, the professor states, "Biofilms are massive colonies of bacteria that join together when they endure some kind of stress," and, "When formed into complex biofilms, bacteria can create new pathways that allow them to consume food and to remove waste matter." As for the consuming of unusual food sources, the professor talks about hydrothermal vents and points out, "Later examinations determined that many of those creatures were feeding on sugars that were produced by bacteria. The bacteria were utilizing a chemical form of photosynthesis by extracting sulfur from the hot water, processing it, and making sugar that enabled both them and the other life there to survive." As for going dormant, the professor says, "The third way bacteria endure extreme environments is by going dormant for extended periods of time. Bacteria can survive with the bare minimum of the necessities of life only to grow in tremendous numbers when the opportunity arises. Do you remember when the oil platform exploded in the Gulf of Mexico a few years ago? Well, a great amount of oil was spilled into the ocean. It turns out that there was a tremendous increase in bacteria blooms all around the oil platform. The bacteria had been lying dormant on rocks on the seabed, but, due to the sudden influx of oil, the bacteria became active."

4 (C) When talking about the very harsh places where they live, the professor implies that bacteria can adapt to any of the environments in which they live.

Dictation

1 I'm not exaggerating in the least bit.

2 But what about *E. coli* and other similar bad bacteria?

3 It turns out that there was a tremendous increase in bacteria blooms all around the oil platform.

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Answers

1 (B)	2 (C)	3 (A)	4 (A)	5 (C)
6 (B)	7 (A)	8 2, 4	9 (A)	10 (C)
11 (D)	12 (A)	13 2, 3	14 (A)	15 (A)
16 (C)	17 (B)			

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and an admissions office employee.

M Student: Hello, Ms. Johnson. I'm Matt Potter, and I'm here to interview for the campus tour guide position.

W Admissions Office Employee: It's a pleasure to meet you, Matt. Please have a seat, and then we can get this interview started.

M: Thank you.

W: I looked at the information you submitted on your application, and you appear to be an outstanding student. You've gotten straight A's every semester, which is quite impressive since you're in the Chemical Engineering Department.

M: Well, I study as hard as I can, and I've happened to do well on my tests.

W: Ah, I see you're modest as well. That's good. So, uh, it appears that your academic qualifications are excellent, but let's be honest . . . You're going to be giving tours, which isn't very, shall we say, academically rigorous. You need other skills to be a good tour guide.

M: Such as?

W: First, you need to love the school. Every guide we have giving tours to prospective students and their parents absolutely loves being here. It's so apparent to the people taking the tours that they often comment on it. We in the admissions office are only interested in hiring students who want to be here. So how do you feel about this school?

M: This was my first choice. In fact, I successfully applied for early admission, so I immediately accepted a place here and withdrew my applications at other universities. I, well . . . I can't imagine myself anywhere else.

W: That's good to know. Out of curiosity, how familiar are you with the campus?

M: What do you mean?

W: Do you know the names of all the academic buildings, dormitories, and other places on campus?

M: Ah, I understand. Hmm . . . I'd say I know the names of around half the buildings on campus. Since I'm an engineer, I spend most of my time in Paxton Hall, but I've taken classes in at least six other buildings on campus. I also visit my friends in their dorms, and I go to the campus center, library, and gym a lot.

W: That sounds good.

M: Is it bad if I'm not familiar with every building here?

W: Not really. We have a booklet we give to our tour guides that has the names of the buildings on campus along with short descriptions of them. Therefore, uh, you can study the booklet and learn what to tell the visitors.

M: Okay.

W: Well, that's just about it. Oh, wait a minute . . . I need to know when you'd be available to give tours. A standard tour lasts thirty-five to forty minutes.

M: Ah, sure. I anticipated this question, so I made a copy of my schedule. Here it is . . . The time blocks that are circled are the ones when I would prefer to work. I'd love to do around ten hours of tours a week.

W: That should be doable. Now, uh, I can't give you the job right away because I have to discuss this with my superior in a few minutes, but between you and me, you're the best of all the applicants I've interviewed. So I'm going to highly recommend hiring you.

M: Thank you for saying that, ma'am.

W: I should be able to let you know by the end of the day. I'll send you a text message around, uh, probably around five or so.

M: Perfect. Thanks a lot, Ms. Johnson. I really hope I get the job.

Answer Explanations

1 **Gist-Purpose Question**
(B) At the beginning of the conversation, the student says, "Hello, Ms. Johnson. I'm Matt Potter, and I'm here to interview for the campus tour guide position."

2 **Detail Question**
(C) The woman comments, "We in the admissions office are only interested in hiring students who want to be here."

3 **Understanding Function Question**
(A) The woman remarks, "We have a booklet we give to our tour guides that has the names of the buildings on campus along with short descriptions of them. Therefore, uh, you can study the booklet and learn what to tell the visitors."

4 **Understanding Attitude Question**
(A) The woman indicates that she is impressed with the student when she says, "Now, uh, I can't give you the job right away because I have to discuss this with my superior in a few minutes, but between you and me, you're the best of all the applicants I've interviewed. So I'm going to highly recommend hiring you."

5 **Making Inferences Question**
(C) The woman will likely speak with her boss next as she says, "Now, uh, I can't give you the job right away because I have to discuss this with my superior in a few minutes".

Lecture #1 [6–11]

| Script |

Listen to part of a lecture in a geology class.

W1 Professor: Beneath the Earth's surface, there are riches to be found in the form of precious minerals. The most valuable include metals such as gold, silver, and platinum as well as gems like diamonds, sapphires, and rubies. There are also more common, but quite useful, minerals, including iron and copper, which we use to make many of the items we require in our daily lives. What I'd like to talk about now is how geologists know where to dig for these minerals. Finding mineral deposits is a vital aspect of mining, which makes geologists crucial to mining companies. To detect mineral deposits, geologists rely upon a wide range of methods and tools, including, um, let's see . . . traditional prospecting, historical knowledge of where minerals are found, satellite imagery, airborne magnetic surveys, and detailed analyses of mineral samples.

The oldest way to find minerals is to prospect for them. Prospecting refers to the actual physical work of walking over the land and looking for signs of mineral deposits. Very often, mineral deposits leave clues near the surface that professional geologists and miners recognize, which means that a large mineral deposit is close by. Gold, for example, is often found in streambeds, where old-fashioned panning can find samples that indicate the potential for large deposits of gold in the area. Outcroppings of exposed minerals may also mean that there are larger deposits underground. Modern tools are useful to prospectors as well. For example, some employ handheld magnetic detectors to find iron ore deposits.

Geologists study historical records and rely upon the wealth of knowledge that has been gathered over the years to locate minerals as well. As an example, copper is found in areas that saw volcanic activity in the past. The reason is that volcanic activity creates large areas where the water underground is very hot. It then flows through the bedrock and causes changes in the rocks that it comes into contact with. That's the way copper ore is created. Volcanic activity is also known for producing seams of kimberlite, which is a kind of rock. If you find kimberlite, you're also likely to discover diamonds, so that's why prospectors know to look near volcanoes for diamonds.

In this modern age, geologists have myriad high-tech tools to assist them in finding minerals. For instance, satellite imagery and magnetic mapping are used by geologists. Satellite images can help geologists gain a better understanding of the land that they want to survey. Satellites can take pictures which interpret different wavelengths on the electromagnetic scale, including infrared wavelengths. These images allow geologists to see the land in a way that the human eye simply is not capable of doing. The images also show the land in a larger scope than is possible when looking at it from ground level. Satellite images in infrared wavelengths can additionally allow geologists to determine soil and rock compositions. From these pictures, geologists can identify different types of rocks and then determine whether or not valuable minerals are likely to be found nearby. Magnetic aerial surveys can be used in a similar manner. Here's what happens. Magnetic detectors are placed on helicopters, which then fly in a grid pattern back and forth over a region in order to cover all the land in a targeted area. Once that is accomplished, computers then use the data to create a magnetic composite picture of the region. This can be beneficial when attempting to locate deposits of magnetic minerals such as iron.

W2 Student: What happens once geologists collect all the data?

W1: Well, when I was working as a geologist, I would analyze the data to determine which places most likely had whatever mineral I was looking for, and then I'd head out into the field to find out what exactly was in the land. I'd do things such as take samples from streambeds and rock outcroppings, and I also frequently dug deep under the ground.

W2: How did you do that?

W1: My team and I would use drills to extract sample cores of rocks from several hundred feet underground. As soon as we thought we had located a deposit, we would analyze the samples we had found. 🎧11 We needed to figure out if it was worth the mining company's time and money to extract the minerals. If the deposit was estimated to be large enough and easy enough to extract from the ground, then mining began. **However, we usually came up empty.** We would only find signs of small deposits or no signs of minerals at all, so we packed our bags and moved to another region to start the entire process anew.

Let me stress one thing to you . . . No matter how much technology geologists use, there's no guarantee that they'll find a large, profitable mineral deposit once mining begins. There are many times when geologists think they've found a huge deposit, but, as soon as the digging starts, very little is extracted. This can cost mining companies millions of dollars in survey fees, land claim fees, and other assorted costs, including the actual mining. Fortunately, that never happened to one of my teams. But let me tell you about something interesting that happened to me once . . .

Answer Explanations

6 Gist-Content Question

Ⓑ During her lecture, the professor talks about which methods geologists use when they are looking for valuable minerals.

7 Connecting Content Question

Ⓐ About gold, the professor notes, "Gold, for example, is often found in streambeds." About copper, she states, "As an example, copper is found in areas that saw volcanic activity in the past."

8 Detail Question

2, 4 The professor lectures, "In this modern age, geologists have myriad high-tech tools to assist them in finding minerals. For instance, satellite imagery and magnetic mapping are used by geologists. Satellite images can help geologists gain a better understanding of the land that they want to survey. Satellites can take pictures which interpret different wavelengths on the electromagnetic scale, including infrared wavelengths. These images allow geologists to see the land in a way that the human eye simply is not capable of doing. The images also show the land in a larger scope than is possible when looking at it from ground level. Satellite images in infrared wavelengths can additionally allow geologists to determine soil and rock compositions." Then, she adds, "Magnetic aerial surveys can be used in a similar manner. Here's what happens. Magnetic detectors are placed on helicopters, which then fly in a grid pattern back and forth over a region in order to cover all the land in a targeted area. Once that is accomplished, computers then use the data to create a magnetic composite picture of the region. This can be beneficial when attempting to locate deposits of magnetic minerals such as iron."

9 Understanding Function Question

Ⓐ The professor talks to the students about how she used to look for minerals when she discusses the time when she was a geologist.

10 Making Inferences Question

Ⓒ At the end of the lecture, the professor tells the students, "But let me tell you about something interesting that happened to me once," so she will probably continue her lecture.

11 Understanding Attitude Question

Ⓓ When the professor says, "However, we usually came up empty," she means that she and her team usually found nothing of value, so their searches were unsuccessful.

Lecture #2 [12–17]

| Script |

Listen to part of a lecture in a marine biology class.

M Professor: If you've ever spent any time on the ocean or even around boats and wharves in ports, you almost certainly noticed that fish have a tendency to swarm around any object that's floating in the water. Close to shore, fish like swimming near wharves and boats that are docked as well as any mooring devices and buoys. Out at sea, they'll congregate around driftwood, masses of seaweed, and even lone coconuts floating in the water. Fishermen have observed this characteristics ever since people first took to the water. They have also long used this habit as a way to catch fish as they lure fish to various manmade floating devices. The term that marine biologists use to describe this trait is fish aggregation. The manmade devices are called fish aggregating devices, or FADs, for short.

Why fish gather around these objects isn't known for certain, but it's likely there are a few reasons. One is that out in the ocean, floating objects are about the only things that fish see which is different. FADs therefore provide some kind of stimulus to their brains when they see the object. The fish therefore swim over to check it out and then remain around it for long periods of time. Another theory is that small fish may be seeking protection by staying near these floating objects. This is especially true in the case of natural objects such as seaweed and floating trees that get swept out to sea. Small fish can hide within these objects and avoid being preyed upon by larger predators. But, interestingly enough, larger fish also swim around these objects, mostly because they are seeking smaller fish to eat. This, in turn, attracts fishermen, who go to places where they have the opportunity to catch both big and small fish.

Many fishermen make their own FADs and then place them in the water to attract fish to places convenient to them. So that there's no confusion regarding what they look like, let me describe them for you. Manmade FADs come in all kinds of shapes and sizes and are made of materials that can float, uh, usually some sort of plastic or wood. They tend to be round in shape and can be attached to the seafloor with long ropes, cables, or chains that are connected to heavy concrete blocks. The bottom half of a FAD is underwater while its top half is above water. On top of a FAD is a high pole with a flag so that fishing vessels can find them while other ships can avoid them. Other FADs are placed entirely underwater, um, beneath the depth of a large ship's keel. Their locations are known only to those who place them. In some instances, fishermen place FADs on top of artificial reefs, which also attract large numbers of fish.

Typically, a FAD, uh, either a natural or manmade one, takes a couple of weeks to a month to attract enough fish to make it profitable for fishermen to cast their nets. Small fish arrive first in search of shelter or simply because they're curious. Big fish such as tuna arrive later. The small fish swim right next to the FADs while the big fish swim in circles a hundred meters away or so. Then, they swim in from time to time to feed on the smaller fish. Some fishermen are only after bigger fish while others want all of them. After the fishermen cast their nets and haul in the fish, they have to wait another few weeks before they can go fishing again since new fish need to be attracted to replace the ones they just caught.

W Student: 🎧17 Hold on a second. It sounds like these fishermen are engaging in overfishing. Is it legal to place FADs in the ocean? If it is, it shouldn't be.

M: **Well, it's a bit of a gray area as far as the law is**

concerned, so people in some nations are seeking to pass laws regarding FADs. And, um, those nations that do have laws already have trouble enforcing them since the fishermen can either move their FADs or place them deep underwater. Another concern regarding FADs is that some fisherman may stake a claim to a specific area after placing a FAD in it. This upsets other fishermen and can result in conflict. Furthermore, FADs are a nuisance to maritime navigation since other boats can get entangled in the mooring lines or even strike the FADs, which can damage their hulls. Finally, the long lines anchoring FADs frequently ensnare dolphins, turtles, sharks, and other animals, and those marine creatures end up dying.

And, uh, yes, overfishing is a major concern. One of the biggest problems with FADs is that many of the fish attracted to them are juveniles which haven't reached adulthood yet, so they haven't mated and produced the next generation of fish. By catching such large numbers of young fish, fishermen are endangering the futures of various species. So, yes, they're quite controversial. However, fishermen see FADs as a way to protect their livelihoods and resent governments and environmentalists from intruding on their lives. But there are some FADs that are less harmful than others. Let me tell you about one right now.

Answer Explanations

12 Gist-Content Question

Ⓐ The professor mostly talks about how fish aggregating devices can be used to attract and catch fish.

13 Detail Question

2, 3 The professor lectures, "Why fish gather around these objects isn't known for certain, but it's likely there are a few reasons. One is that out in the ocean, floating objects are about the only things that fish see which is different. FADs therefore provide some kind of stimulus to their brains when they see the object. The fish therefore swim over to check it out and then remain around it for long periods of time. Another theory is that small fish may be seeking protection by staying near these floating objects. This is especially true in the case of natural objects such as seaweed and floating trees that get swept out to sea. Small fish can hide within these objects and avoid being preyed upon by larger predators."

14 Gist-Purpose Question

Ⓐ The professor remarks, "So that there's no confusion regarding what they look like, let me describe them for you."

15 Making Inferences Question

Ⓐ The professor comments, "After the fishermen cast their nets and haul in the fish, they have to wait another few weeks before they can go fishing again since new fish need to be attracted to replace the ones they just caught." So it can be inferred that fish aggregating devices can be used multiple times to catch fish.

16 Understanding Organization Question

Ⓒ In talking about overfishing, the professor declares, "And, uh, yes, overfishing is a major concern."

17 Understanding Function Question

Ⓑ When the professor states, "Well, it's a bit of a gray area as far as the law is concerned, so people in some nations are seeking to pass laws regarding FAD," it can be inferred that the laws about fish aggregating devices vary from country to country.

Practice with Short Passages p. 106

A

Answers

1 Ⓑ 2 Ⓓ

| Script |

Listen to part of a conversation between a student and a housing office employee.

M Student: Good morning. Um . . . Is this the place where I should come if I lost the key to my dorm room?

W Housing Office Employee: Well, that depends. Can you tell me where you might have lost it?

M: Actually, I know exactly where I lost it.

W: Yes?

M: I feel sort of silly about what happened. You see, uh, I was having dinner at the dining hall last night. I put my dorm room key on the tray while I was eating, and, um . . . I simply forgot it was there when I finished my meal, so I left it on the tray. It must have gotten lost in the uh, the dishwashing process.

W: Did you talk to anyone at the dining hall to see if somebody washing the dishes found it? I mean, um, they find lost items there all the time. There's a good chance your key was found by someone.

M: Yes, ma'am. I went there this morning and asked somebody, but nobody had turned anything in.

W: This morning? Why didn't you go last night right after you realized your key was gone?

M: Um . . . To be honest, I didn't know that I had thrown it away for a few hours. You see, um, after I finished dinner, I didn't go back to my dorm room. Instead, I headed straight to the library, where I stayed until around eleven at night. It was only when I was heading back to my room that I suddenly noticed I didn't have my key. And, uh, by that time, the dining hall had closed for the night.

W: Ah, I see. Well, it's unfortunate, but these things sometimes happen.

M: So . . . I'll be able to get a new key, right?

W: 🎧2 Yes, of course. All you have to do is fill out this form right here . . . I'll need to see your student ID as well. Oh, and a replacement key costs $20. You have to pay for it right now.

M: **Wow, that's more than I had expected, but, uh, you take cash, right? I think I've got enough on me.**

W: Yes, that's an acceptable form of payment.

Answer Explanations

1 Ⓑ When explaining how he lost his key, the student says, "I feel sort of silly about what happened." So it can be inferred that he is embarrassed about what happened.

2 Ⓓ When the student states, "That's more than I had expected," he means that he believes the price of a replacement key is very expensive.

B

Answers

1 Ⓐ 2 Ⓐ

| Script |

Listen to part of a conversation between a student and a professor.

W Student: Professor Richardson, I can't wait to visit the museum of natural history. I've never been there before, so it should be a great experience.

M Professor: You've never gone there? 🎧2 Aren't you a senior, Vicky?

W: Actually, I'm only a junior, but you're right in implying I should have checked out the museum earlier. I guess I've just been too busy with my schoolwork to get to the city very much.

M: **Well, you're going to be in for a real treat this Wednesday.**

W: Are we going to take a tour of the museum to see all of the exhibits?

M: No, we're not doing that because the museum has exhibits on a wide variety of things. For instance, the dinosaur exhibit may be fascinating, and I highly recommend it, but it has nothing to do with ancient Rome, so we're going to bypass that part of the museum. If you want to see exhibits like fossils and, uh, modern art, you'll have to go to the museum on your own time.

W: So, uh, in that case, what exactly are we going to do?

M: For starters, we're going to look at the items from ancient Rome that the museum has on permanent display. It

will take us about an hour to do that since I'm going to be lecturing about the relics at the same time. After that, we're going to visit some of the backrooms in the museum.

W: Yeah? What's there?

M: You may not be aware of this, but the museum has one of the largest collections of relics from ancient Rome in the entire country. However, due to space limitations, it only exhibits a tiny percentage of those artifacts at one time. The rest are kept in storage rooms in the museum's basement, but we're going to get to see those items.

W: Wow. How did you pull something like that off?

M: The curator is rather considerate of the needs of local scholars, so he permits instructors at some schools to bring their classes to the museum every year.

W: It's nice of him to contribute to the advancement of knowledge like that.

M: You're right. Since every item can't be displayed, it's great to get the opportunity to see everything else. You're going to be astounded by some of the items we get to see.

Answer Explanations

1 Ⓐ About the curator, the student says, "It's nice of him to contribute to the advancement of knowledge like that."

2 Ⓐ When the professor tells the student, "You're going to be in for a real treat," it can be inferred that he expects the student to be impressed by what she sees at the museum.

C

Answers

1 Ⓑ 2 Ⓒ

| Script |

Listen to part of a lecture in an anthropology class.

W Professor: Prior to the onset of civilization several thousand years ago, most of humanity was grouped together in hunter-gatherer bands. For anthropologists, studying the lives of prehistoric people is problematic for several reasons. For starters, they left no written records, so we have no firsthand accounts of them. Secondly, we tend to ascribe our modern values and way of life on the people in the past that we study, but we simply must avoid doing this to understand how they lived. Finally, we can't assume that all hunter-gatherers were identical; thus they can't be studied as if they were one large group with the same structure and habits everywhere around the world. 🎧2 Instead, these groups lived differently depending upon their environments, which included, hmm, let me think . . . the local geography, the available food supplies, and the climate. For instance, a hunter-gatherer clan in Africa had an extremely different lifestyle than one living in the Arctic. **Anthropologists who make any of these mistakes are doing their profession a disservice and will arrive at incorrect conclusions.**

Nevertheless, we can make some generalizations about early hunter-gatherer bands. They were small groups comprising a few dozen people at the most. It's believed they were primarily family groups covering several generations, yet there may have been a few different families in one clan. Within the band, each member had certain tasks, which were often divided based on sex and age, to perform. For the most part, women who were of child-bearing age or who had given birth already were responsible for taking care of the children. These women included both mothers and grandmothers, and they likely reared the children as a group activity.

As for the men, their primary tasks were to protect the clan and to hunt for meat. Almost all hunter-gatherer groups ate meat. Besides the flesh of mammals, they consumed fish, birds, reptiles, and even insects. Those in the Arctic regions pretty much only ate meat while those in warmer climates had access to and, uh, therefore ate various fruits, vegetables, and grains. The men hunted in groups and used spears as well as bows and arrows to kill prey. Men, women, and children all took part in preparing the meat for cooking, curing the hides, and using other animal parts, such as bones, to make useful tools.

All members of the clan, um, except for the youngest children, foraged for edible plant matter. Sometimes the group had to wander far to find sufficient amounts of sustenance, but that wasn't always the case. In certain regions, there was enough food that a clan could survive in one place for several generations. Each member ate while foraging but would take food back to those protecting the children or out hunting for meat. The group members also shared duties when it came to doing tasks such as gathering firewood, building shelters, and carrying loads to new campsites.

M Student: What about the leaders? Did they also engage in this work?

W: You may be surprised to hear this, but we believe these hunter-gatherer groups had no leaders. Instead, they all had equal roles in the group.

M: How can you be sure of that if there aren't any written records, uh, like you pointed out a moment ago? I don't see how it's possible to know any of this.

W: Well, uh, we don't know this for sure, but that's what most modern-day anthropologists feel happened in the past. We aren't positive though, so we just go by what we think most likely happened.

Answer Explanations

1 Ⓑ The student remarks, "How can you be sure of that if there aren't any written records, uh, like you pointed out a moment ago? I don't see how it's possible to know any of this." In saying that, he expresses his skepticism toward what the professor is saying. His tone of voice also indicates that he doubts what the professor is saying is true.

2 Ⓒ When the professor says, "Anthropologists who make any of these mistakes are doing their profession a disservice and will arrive at incorrect conclusions," it can be inferred that she believes some anthropologists do poor work.

D

Answers

1 Ⓓ 2 Ⓐ

| Script |

Listen to part of a lecture in an environmental science class.

M Professor: Okay, would everyone please quiet down because we need to get started with today's lecture . . . ? All right, let's begin . . . Sound travels four times faster in water than it does in air. The actual rate is 1,230 meters per second for sound in water compared to 340 meters per second for sound in air. This faster rate is due to the way molecules are packed more tightly in water than in air, thereby permitting a swifter transfer of sound. Some sounds are capable of traveling through water for miles. Sounds are additionally louder in water than in air because of water's greater density, which leaves less room for them to dissipate. Interestingly, on account of the way that sound moves in air, a person a short distance away may not hear it, yet sounds made in water will almost always be heard by the people or creatures around it.

And this fact is causing problems. There's an environmental issue called sound pollution in water. Sound pollution is mainly made by humans. Think about it . . . All of our oceangoing ships, motorboats, jet skis, oil-drilling platforms, navy ships with sonar, and other manmade machines are filling the oceans with sound. This isn't new either as it has been a problem since the 1970s. Scientists at that time estimated that the sounds in the ocean had increased ten decibels since the 1950s, mostly due to the global increase in shipping and the use of recreational boats. In the past forty years, this problem has worsened.

W Student: How is sound pollution affecting marine life forms? It can't be good for them, can it?

M: 🎧2 Most certainly not. Still, uh, it's hard to say exactly how big of a problem it is since we can't ask dolphins, whales, and other marine life what they think of all the noise. **It's also a matter of dispute between those making the pollution and environmentalists since, unlike oil and gas drilling and pollution in the oceans, we don't know for sure how dangerous or harmful sound pollution is.** We can make some good estimates of what trouble it's causing though. For instance, mammals such as dolphins and whales use sound in their daily lives. How . . . ? Well, they use sounds to communicate with one another, to find food and mates, and to navigate. But the increased levels of noise in the oceans are making it harder for them. Or, uh, at least we think it's becoming harder.

Here's an example of what may be happening . . . Whales use a frequency to communicate with one another which is in the same sound range that most ocean noise pollution is at. At times, whales hear the sounds of ships' engines, get confused, and then slam into the sides of huge oceangoing vessels. The number of whale collisions with ships is increasing, and the unfortunate result is that many whales are dying. Another problem is that the noise which recreational boaters closer inshore make sometimes drives whales and dolphins out of the same locations, which are where they frequently feed or mate.

Yet another problem has to do with navigation. It's widely believed that naval ships using sonar can interfere with whales' ability to navigate. Sonar utilizes high-energy pulses that are some of the loudest sounds in the ocean. Whales are thought to beach themselves to try to escape from these pulses. In other instances, they lose the ability to navigate, so they mistakenly swim into shallow water, get trapped, and then die. So, uh, as you can see, sound pollution in the water is a huge issue, and something really needs to be done about it.

Answer Explanations

1 Ⓓ The professor indicates that he believes sound pollution is causing harm to marine creatures when he says, "Still, uh, it's hard to say exactly how big of a

problem it is since we can't ask dolphins, whales, and other marine life what they think of all the noise. It's also a matter of dispute between those making the pollution and environmentalists since, unlike oil and gas drilling and pollution in the oceans, we don't know for sure how dangerous or harmful sound pollution is. We can make some good estimates of what trouble it's causing though. For instance, mammals such as dolphins and whales use sound in their daily lives. How . . . ? Well, they use sounds to communicate with one another, to find food and mates, and to navigate. But the increased levels of noise in the oceans are making it harder for them. Or, uh, at least we think it's becoming harder."

2 Ⓐ When the professor remarks, "It's also a matter of dispute between those making the pollution and environmentalists since, unlike oil and gas drilling and pollution in the oceans, we don't know for sure how dangerous or harmful sound pollution is," he means that nobody is certain how much harm sound pollution in the oceans actually causes.

Practice with Long Passages p. 110

A

Answers

1 Ⓐ 2 Ⓒ 3 Ⓑ 4 Ⓒ

| Script |

Listen to part of a conversation between a student and a student services office employee.

M1 Student: Good afternoon. I'm looking for Ms. Linda Anderson. Would you happen to know where she is? I've got an appointment to see her at three thirty today.

M2 Student Services Office Employee: I'm sorry, but Ms. Anderson is currently out of the office. She fell ill and had to leave for the day.

M1: Oh . . . That's unfortunate. I hope she gets better soon. Um . . . Do you happen to know when she's going to be back? I understand that she's sick, but I have something of importance that I need to discuss with her.

M2: Would your name happen to be Eric Kennedy?

M1: Yes, that's me.

M2: Ah, that's great. Linda sent me an e-mail about you around thirty minutes ago. She told me I should expect you to drop by to make a request. So, uh, is there something I can assist you with?

M1: Yes, that would be wonderful. I'm pleased Ms. Anderson was thoughtful enough to write about me to you even though she's unhealthy.

M2: That's the kind of person she is.

M1: She seems like she's pretty dedicated to her job. 🎧4 Anyway, uh, I'm the president of the club Movie Matters, and I'm here to reserve a room.

M2: Shall I assume that you're going to screen a movie in this room, or is this merely going to be a meeting of some sort?

M1: **Does it make a difference?**

M2: Yes, it makes a big difference. Er . . . You're new to this, aren't you?

M1: Um . . . Is it that obvious?

M2: A bit, but don't worry about it. There's a first time for everything. Let me explain why I asked you the question. You see, uh, if you're just going to have a regular meeting, I can assign you any number of empty rooms on campus. However, if you're going to show a movie, you need for the room to have a projector—or a computer if you're showing a DVD—as well as a screen. We've only got a few rooms on campus like that, and they tend to be in high demand. So you might not get the room you're looking for at the time you desire if that's what you're going to be doing.

M1: Ah, I get it. Well, we plan to show a movie, so I guess we're going to need one of those special rooms you mentioned. I hope there's something available. We're going to screen the film this coming Sunday night.

M2: All right. What time are you hoping to do that? Oh, and how long will the movie last?

M1: We'd like to have the room from, um . . . eight to eleven at night would be ideal. How does that sound?

M2: Hold on a second and let me put everything in the computer . . . Huh, you're in luck. It looks like you'll get your choice of two rooms. Why don't I describe each room to you, and then you can tell me which one you prefer?

Answer Explanations

1 Ⓐ At the beginning of the conversation, the student tells the employee, "I'm looking for Ms. Linda Anderson. Would you happen to know where she is? I've got an appointment to see her at three thirty today."

2 Ⓒ About Ms. Anderson, the student remarks, "I'm pleased Ms. Anderson was thoughtful enough to write about me to you even though she's unhealthy," and he also states, "She seems like she's pretty dedicated to her job."

3 Ⓑ At the end of the conversation, the employee tells the student, "Huh, you're in luck. It looks like you'll get your choice of two rooms. Why don't I describe each room to you, and then you can tell me which one you prefer?" So the student will probably select a room to reserve next.

4 Ⓒ When the student asks the employee, "Does it make a difference?" with regard to the type of room he is going to reserve, it can be inferred that the student has never reserved a room for the movie club.

Dictation

1 She seems like she's pretty dedicated to her job.

2 Let me explain why I asked you the question.

3 Why don't I describe each room to you, and then you can tell me which one you prefer?

B

Answers

1 Ⓐ 2 Toothed Whale: 1, 2, 4 Baleen Whale: 3
3 Ⓑ 4 Ⓓ

| Script |

Listen to part of a lecture in a marine biology class.

W Professor: Aside from being the largest creatures on the planet and mammals that live in the ocean, whales are unique in other ways. One of them concerns the sounds they're capable of making. Whales use sounds both for communication and navigation purposes. Have you ever wondered why they use sound . . . ? It's simple. In the water, sound is more useful and effective than both sight and smell. The reason concerns the manner in which water molecules slow down and scatter light and odors yet permit sound to travel at greater speeds than it does in the air.

The way whales produce sound depends upon the species. There are two main types of whales. First are toothed whales such as sperm whales, dolphins, and porpoises. Uh, the last two are considered whales in case you don't know. The second type are baleen whales such as the blue whale. Baleen whales don't have teeth but instead have thick batches of bristle-like barriers in their mouths used to filter out marine life forms from water passing over them.

Okay, so how do whales make sounds . . . ? Toothed whales make clicking sounds with what marine biologists call phonic lips. They aren't real lips, of course, but are sort of like, um, hmm . . . they're sort of like the sinuses we have in our nasal area. The phonic lips are connected to an organ in the whale's forehead. This soft organ is called the melon. It acts in a manner similar to a sonar dome on the underside of a ship. The melon emits clicking sounds through the water in an arc in front of the toothed whale.

As for baleen whales, they produce sound in a simpler manner. They have a larynx which is in the shape of a large sac and can inflate and deflate by the whale contracting muscles in its chest and throat. The larynx sac presses against what's called a vocal fold, uh, a thick U-shaped mass of tissue. When air passes in and out of the larynx sac, it vibrates against the vocal fold and produces sounds. The sounds then leave the whale's body through the slit-like openings on the sides of its head called ventral throat pleats. The pleats are what help the baleen whale expand its mouth when it sucks in lots of water to filter it to find food.

M Student: 🎧4 Which produces louder sounds, toothed whales or baleen whales?

W: **Well, loudness is a subjective way to measure sounds, so it's not particularly good to call one whale's sounds louder than another's.** What we can do, however, is compare their frequency range. That's one thing we know about both types of whales. Baleen whales produce sounds in a lower frequency range than toothed whales. The sounds baleen whales make get only as high as thirty kilohertz whereas the sounds toothed whales make can get as high as 150 kilohertz.

Next, let's explore how whales use their sounds. Toothed whales mainly use them for echolocation, which is a way to navigate underwater. The whales send out bursts of clicks on short wavelengths. These sounds hit objects in the water and bounce back to the whales, just like, uh, just like sonar. That enables them to know what's in the water surrounding them. Toothed whales additionally produce more unique sounds, called whistles by researchers. These whistles are like a toothed whale's signature, and it's believed they use these whistles in pods of other whales to identify one another. Baleen whales, on the other hand, aren't believed to use sounds for echolocation. Instead, researchers speculate that they use sounds mainly to find mates or to communicate with their pod members to get them to change directions or to warn them of danger. But, uh, that's merely a hypothesis. We don't know for sure.

I think now is a good time to play some whale sounds for

you so that you can appreciate their beauty. Listen closely to the sounds these whales make . . .

Answer Explanations

1 Ⓐ During the lecture, the professor compares and contrasts toothed whales and baleen whales.

2 Toothed Whale: [1], [2], [4] Baleen Whale: [3]
About the toothed whale, the professor states, "Next, let's explore how whales use their sounds. Toothed whales mainly use them for echolocation, which is a way to navigate underwater," and, "Baleen whales produce sounds in a lower frequency range than toothed whales. The sounds baleen whales make get only as high as thirty kilohertz whereas the sounds toothed whales make can get as high as 150 kilohertz." She also adds, "Toothed whales additionally produce more unique sounds, called whistles by researchers. These whistles are like a toothed whale's signature, and it's believed they use these whistles in pods of other whales to identify one another." Regarding the baleen whale, the professor mentions, "As for baleen whales, they produce sound in a simpler manner. They have a larynx which is in the shape of a large sac and can inflate and deflate by the whale contracting muscles in its chest and throat. The larynx sac presses against what's called a vocal fold, uh, a thick U-shaped mass of tissue. When air passes in and out of the larynx sac, it vibrates against the vocal fold and produces sounds."

3 Ⓑ At the end of the lecture, the professor tells the class, "I think now is a good time to play some whale sounds for you so that you can appreciate their beauty. Listen closely to the sounds these whales make . . ."

4 Ⓓ When the professor makes her response to the student, it can be inferred that she does not like the way that he phrased his question when she remarks, "It's not particularly good to call one whale's sounds louder than another's."

Dictation

1 The way whales produce sound depends upon the species.

2 As for baleen whales, they produce sound in a simpler manner.

3 I think now is a good time to play some whale sounds for you so that you can appreciate their beauty.

iBT Practice Test p. 114

Answers

1 Ⓑ	2 [1], [4]	3 Ⓑ	4 Ⓒ	5 Ⓒ
6 Ⓐ	7 [1], [3]	8 Ⓑ	9 Ⓒ	

10 Gene Theory: [2] Reactive Oxygen Theory: [1], [3], [4]

11 Ⓑ	12 Ⓒ	13 Ⓐ	14 Ⓐ–Ⓒ–Ⓓ–Ⓑ
15 [2], [3]	16 Ⓐ	17 Ⓓ	

Conversation [1–5]

Script

Listen to part of a conversation between a student and a professor.

M Professor: Good morning, Rachel. Thank you for agreeing to come here to see me today.

W Student: No problem, Professor Lewis.

M: Um . . . I think I'd better be blunt and just come out and say what's on my mind . . . Rachel, the quality of your work has declined a great deal in the past two months. Are you having trouble understanding the material we're going over in class?

W: No, sir. I comprehend everything you're teaching in all of the lessons.

M: Are you sure about that? I mean, we have homework in every class, but you haven't submitted a homework assignment in, um . . . let me check my files . . . Ah, here it is. It's been six weeks since you've turned in your homework.

W: Yes, I know that.

M: Are you aware that homework counts for twenty percent of your class grade? If you continue this trend of not turning in any homework, the highest grade you'll be able to get in my class will be a C+, and that's assuming you get a perfect score on the final exam. I strongly urge you to start doing your homework.

W: Yes, sir. I understand. I'm truly sorry about not doing my homework.

M: Is there something going on that you'd like to discuss with me?

W: Well, to be honest, I haven't really been able to focus on schoolwork this entire semester.

M: Are you sick? Or, uh, do you have a family or financial issue?

W: It's a personal issue involving my parents, but, um, if you don't mind, I'd rather not discuss it. However, I guess I should inform you that I probably won't be here at school next semester, so I guess that's why I've been a bit, er, lax regarding my homework.

M: Ah, okay . . . Well, I won't pry into your personal business, but do you mind if I give you a bit of advice?

W: No, sir. That's fine.

M: First, you should speak with your academic advisor. Out of curiosity, who is your advisor?

W: Professor Kenmore in the Biology Department.

M: Ah, she's a great teacher. I sometimes have lunch with her. Why don't you speak with her about your issues? Now, uh, you don't have to be specific, but she can help you make it through the semester without failing all of your classes.

W: What difference does it make if I'm not planning to come back?

M: Things may change. Perhaps something will happen, and you'll make it back here next semester. Or, uh, maybe you'll return here in a year or two after taking some time off. If that happens, you don't really want to have three or four F's on your transcript, do you?

W: Oh . . . Now that you put it that way, I see your point.

M: That's good. So why don't you talk to her, and then she can start the process of getting you extensions on all your assignments? That will enable you to get caught up with your classes, and you won't be penalized for being late with them. 5 You know, I'm fairly certain Professor Kenmore is in her office right now, so I can call her and see if she has time to speak with you today. How does that sound?

W: **It seems like the right thing to do.**

Answer Explanations

1 **Gist-Purpose Question**
Ⓑ The professor asks the student, "I think I'd better be blunt and just come out and say what's on my mind . . . Rachel, the quality of your work has declined a great deal in the past two months. Are you having trouble understanding the material we're going over in class?"

2 **Detail Question**
[1], [4] The professor advises the student, "I strongly urge you to start doing your homework." He also adds about the student's advisor, "Why don't you speak with her about your issues? Now, uh, you don't have to be specific, but she can help you make it through the semester without failing all of your classes."

3 **Making Inference Question**
Ⓑ Regarding Professor Kenmore, the professor comments, "Ah, she's a great teacher. I sometimes have lunch with her." So it can be inferred that Professor Lewis is on good terms with her.

4 **Understanding Attitude Question**
Ⓒ During the entire conversation, the professor shows that he is very concerned about the well-being of the student.

5 **Understanding Attitude Question**
Ⓒ When the student responds to the professor's comment by saying, "It seems like the right thing to do," she means that she supports what the professor suggests doing.

Lecture #1 [6–11]

Script

Listen to part of a lecture in a physiology class.

M Professor: At some point in all people's lives, their bodies begin aging. Several things happen when people begin the aging process. As examples, um, obviously, their bodies start deteriorating, and the classic signs of aging appear. Those include, um, baldness, the graying of hair, the diminishing of sight and hearing, frailty in the bones and muscles, wrinkles on the skin, and numerous health issues commonly associated with aging, such as dementia, heart disease, and many forms of cancer. Why we age has been studied extensively, especially during the past century, yet the exact mechanism behind aging remains a mystery. We do, however, have some reasonable suppositions about what causes it.

Researchers believe that factors related to genes play a big role in the aging process, and they further believe that the introduction of reactive oxygen species—more commonly known as free radicals—into the body are of vital importance. Both of these factors lead to cell death, which results in the deterioration of the body. Okay, uh, this is going to require a bit of explaining, but I'll try to make it as uncomplicated as possible. To begin, understand that the human body is comprised of trillions of cells, each of which acts differently. For instance, some cells die quickly and get replaced while other cells can survive for decades but don't get replaced when they die. Cells die for a variety of reasons, but, um, for the most part, they're preprogrammed to die early and then to be replaced, or they may suffer some kind of damage, which shortens their lives.

Genes are connected with cell damage, death, and

patterns of aging in some groups of people. They are also different in each person, and we pass our genes on to the next generation. Therefore, over time, we can see some patterns of aging and age-related health problems in individual groups, um, such as ethnic groups and families. In some groups, cancer and heart disease are common, in others, dementia happens with great frequency, and in others, early onset baldness, vision problems, and other signs of aging occur. These are all the results of genes which the members of particular groups have in common.

Some genes have been discovered to cause various types of cancer. The BRCA1 and BRCA2 gene mutations, as an example, cause breast cancer. For almost everyone, gene damage prevents the replication of cells or, um, at least slows down the regenerative process when cells die. Therefore, nearly everyone's body slowly starts deteriorating as gene damage in cells accumulates over time. Why and how genes are damaged are still points of discussion among experts though. Oh, uh, you should also be aware that good genes can increase a person's life span. The gene called FOXO3A is common in people who live to be more than 100 years old. Exactly how this helps them live longer isn't known but is, unsurprisingly, being studied intensively. It's a mystery that many people, myself included, hope is unraveled in the near future.

W Student: Pardon the interruption, Professor Duquesne, but what about diet and exercise? Don't factors such as these play a role in longevity?

M: That's true, especially with regard to diet. Studies done on the diets of people who live long lives show some patterns, such as a greater consumption of fish, vegetables, and fruit than red meat and starchy grains. And, um, interestingly enough, diet and longevity are tied to the reactive oxygen theory of aging. You may have heard this term by a different name since it's frequently called the free radical theory. This theory posits that atoms with missing electrons seek new electrons to achieve balance. Electrons normally orbit the nucleus of an atom in pairs, but sometimes an electron goes missing. Those atoms with missing electrons are known as free radicals. The lone electron seeks an electron from another molecule in order to create a pair again. It does this by pulling an electron off a nearby molecule. This, in turn, creates a new free radical, which then seeks a new electron from another molecule. As you can surmise, this results in a never-ending chain reaction as new free radicals seek electrons. Interestingly enough, this causes damage to the cell which the molecules are part of. The cell may die or, in worse cases, mutate and become cancerous. The free radical chain theory has also been linked to some effects of aging, including the increase of wrinkled skin and the buildup of plaque in arteries, which can lead to heart disease.

There's an entire food industry that has arisen in recent decades on account of this theory. The notion is that we can undo the damage caused by free radicals by ingesting foods like vegetables and fruits that have antioxidant properties. Antioxidants are molecules that can lose an electron yet not become free radicals. Hence they can replace the lost electrons on free radicals without causing the chain reaction leading to cell death, faster aging, and potentially fatal diseases.

Answer Explanations

6 Gist-Content Question

Ⓐ The lecture is mostly about some of the possible causes of aging in humans.

7 Detail Question

1, 3 The professor lectures, "Genes are connected with cell damage, death, and patterns of aging in some groups of people. They are also different in each person, and we pass our genes on to the next generation. Therefore, over time, we can see some patterns of aging and age-related health problems in individual groups, um, such as ethnic groups and families. In some groups, cancer and heart disease are common, in others, dementia happens with great frequency, and in others, early onset baldness, vision problems, and other signs of aging occur."

8 Connecting Content Question

Ⓑ The professor states, "Some genes have been discovered to cause various types of cancer. The BRCA1 and BRCA2 gene mutations, as an example, cause breast cancer." So a person with the BRCA1 gene will likely get a type of cancer.

9 Understanding Organization Question

Ⓒ The professor expresses her hope that the research on the FOXO3A gene will be successful in commenting, "The gene called FOXO3A is common in people who live to be more than 100 years old. Exactly how this helps them live longer isn't known but is, unsurprisingly, being studied intensively. It's a mystery that many people, myself included, hope is unraveled in the near future."

10 Connecting Content Question

Gene Theory: 2 Reactive Oxygen Theory: 1, 3, 4
About the gene theory, the professor notes, "Genes are connected with cell damage, death, and patterns of aging in some groups of people. They are also different in each person, and we pass our genes on to the next generation. Therefore, over time, we can see some patterns of aging and age-related health problems in individual groups, um, such as ethnic groups and families. Regarding the reactive oxygen theory, the professor remarks, "You may have heard this term by a different name since it's frequently called the free radical theory." The professor also states, "This theory posits that atoms with missing electrons seek new electrons to achieve balance. Electrons normally orbit the nucleus of an atom in pairs, but sometimes an electron goes missing. Those atoms with missing electrons are known as free radicals. The lone electron seeks an electron from another molecule in order to create a pair again. It does this by pulling an electron off a nearby molecule. This, in turn, creates a new free radical, which then seeks a new electron from another molecule. As you can surmise, this results in a never-ending chain reaction as new free radicals seek electrons." The professor then adds, "The free radical chain theory has also been linked to some effects of aging, including the increase of wrinkled skin and the buildup of plaque in arteries, which can lead to heart disease."

11 Understanding Organization Question

Ⓑ The professor focuses on the relationship of the food industry with the reactive oxygen theory in saying, "There's an entire food industry that has arisen in recent decades on account of this theory. The notion is that we can undo the damage caused by free radicals by ingesting foods like vegetables and fruits that have antioxidant properties. Antioxidants are molecules that can lose an electron yet not become free radicals. Hence they can replace the lost electrons on free radicals without causing the chain reaction leading to cell death, faster aging, and potentially fatal diseases."

Lecture #2 [12–17]

| Script |

Listen to part of a lecture in a performing arts class.

W Professor: Before we delve into modern theater, I think it would be best if we were to discuss the roots of theater first. Just so you know, I'm only going to focus on theater in the Western world. Both the Eastern world and Africa have rich and extensive histories of their own when it comes to theater; nevertheless, they had very little influence on Western theater until modern times. And, uh, to be clear, when I say Western theater, I'm referring to that which developed and evolved over time in Europe and the Americas.

The starting point for the history of Western theater is Greece. Theater in the ancient world is believed to have begun as an offshoot of festivals. You see, in many ancient societies, there were festivals for various occasions. Most were related to specific gods, and music and dancing were typically integral to them. Costumes and masks were additionally worn during some religious festivals, and the festivals included rituals which were performed by priests while the audience looked on as spectators. So, as you can see, those were the two sides to any theatrical performance: the performers and the spectators.

In Greece, one such festival was held in honor of Dionysus, the god of fertility and wine. By the sixth century B.C., the festival for Dionysus had taken on a structured form as singers and dancers related stories from Greek mythology. These individuals became the first chorus in theatrical history. One priest of Dionysus, a man named Thespis, started the tradition of interacting with the chorus by speaking to them in plain language, uh, that is, by engaging them in dialogue. In effect, he became the first actor on a stage, so today we call our actors thespians in honor of Thespis. The Greek tradition of theater was thusly born with its two main elements: the actor on stage and the chorus. Thespis and others like him started staging theatrical competitions during the festival of Dionysus, and from them arose the first of the Greek theatrical styles, which was tragedy. Here's an interesting tidbit of information for you . . . In 534 B.C., Thespis was given an award for his performance at one of these competitions, so I guess you can say he was the first best actor award winner in history.

At that time, Greek plays consisted only of one actor and the chorus. By the early fifth century B.C., another of the great Greek actors and playwrights, named Aeschylus, expanded the concept of the stage performance by adding a second actor. A later innovation by the playwright Sophocles added a third actor, thereby allowing for even more diversity in stage performances. In the fifth century B.C., Euripides emerged as a noted playwright of Greek tragedies. Of all the great Greek writers, more of his works—nineteen in all—have survived to this day while we only have a handful of the works of others. It was around that time that comedy began to be a part of the competitions at festivals. The first great comedic playwright was Aristophanes. The Greeks also designed the common theater structure, the amphitheater, with its rising tiers of benches or seats with the stage in front of the spectators, a style still utilized in modern-day theaters around the world.

Greek culture spread far and wide throughout the Mediterranean region, and elements of their theater followed them. One place they colonized was Italy, and that had a profound influence on the future history of theater in the Western world. The Romans went on to

conquer all of Italy and Greece itself, but that happened after they had already been influenced by many aspects of Greek culture, including theater. There were, of course, many differences. Um, let's see . . . The Romans preferred comedies to tragedies, and they also allowed women to appear on stage, um, something the Greeks did not permit to happen.

17 As I hope you all know, the Romans conquered much of the land that comprises modern-day Europe. As a result, aspects of Roman theater accompanied them elsewhere. **However, after the fall of Rome in the fifth century, the Christian church came to dominate Europe, and it frowned upon theatrical performances.**

M Student: Wait a minute. In Professor Rudolph's medieval English literature class, we learned about some of the miracle plays that were performed during Easter service. Don't those count as theatrical performances? I'm pretty sure they do.

W: Ah, yes, Paul, that was an exception. Just in case you don't know, class, Paul is referring to how churches in the Middle Ages would stage plays about the events involved in the death and resurrection of Jesus Christ. While these miracle plays, as they were called, were quite popular, of more importance were the traveling performance troupes that could be found throughout Europe. They were crucial because they preserved the traditions of theater from Greece and Rome, uh, albeit in a different form. They performed a wide variety of acts, including singing, storytelling, music, and juggling. It wasn't until the Renaissance, when there was a revival of Greek and Roman theater in Italy and other places, that there was a true return to the roots of traditional theater. Let me talk for a bit about that now . . .

Answer Explanations

12 Gist-Content Question

Ⓒ The professor focuses on the origin of the theater as well as its early years in her lecture.

13 Understanding Organization Question

Ⓐ The professor talks about the contributions to the development of theater there were made by Thespis when she covers him.

14 Connecting Content Question

Ⓐ–Ⓒ–Ⓓ–Ⓑ Regarding the development of the theater, the professor first states, "The starting point for the history of Western theater is Greece. Theater in the ancient world is believed to have begun as an offshoot of festivals." Then, she mentions, "By the sixth century B.C., the festival for Dionysus had taken on a structured form as singers and dancers related stories from Greek mythology. These individuals became the first chorus in theatrical history." Next, she says, "By the early fifth century B.C., another of the great Greek actors and playwrights, named Aeschylus, expanded the concept of the stage performance by adding a second actor." Last, she notes, "It was around that time that comedy began to be a part of the competitions at festivals. The first great comedic playwright was Aristophanes."

15 Detail Question

2, 3 The professor remarks, "The Romans preferred comedies to tragedies, and they also allowed women to appear on stage, um, something the Greeks did not permit to happen."

16 Understanding Attitude Question

Ⓐ The professor tells the class, "While these miracle plays, as they were called, were quite popular, of more importance were the traveling performance troupes that could be found throughout Europe."

17 Understanding Attitude Question

Ⓓ When the professor says, "However, after the fall of Rome in the fifth century, the Christian church came to dominate Europe, and it frowned upon theatrical performances," she means that the Christian church did not like theatrical performances.

Practice with Short Passages p. 124

A

Answers

1 Ⓒ 2 Ⓐ

| Script |

Listen to part of a lecture in an art class.

W1 Professor: When the camera was invented in the mid-nineteenth century, an entirely new way of visualizing the world came about. Photographs captured the realism of people, the land, and the objects people used. Over time, painters began aping the manner in which the camera worked by adding more elements of realism to their work. And photography itself began to take on an artistic aspect. This resulted in a debate, um, one that is still ongoing, regarding whether or not photography is an actual art. Sally? You have something to add?

W2 Student: Well, of course it's art. Who could possibly think differently?

W1: To be honest, lots of people would. But, um, let's hold off on the argument that it's not art for a moment and consider photography as if it were art. The main argument for it being art is rather simple. A photograph, like a painting, is a visual representation of the world around us. Much like a painter does, a photographer uses tools. A painter utilizes canvas, an easel, and paint whereas a photographer utilizes a camera and film. By adjusting their tools, both can create different visual effects, thereby enhancing the way their work is seen. Hence a photograph is art on an equal standing as a painting or drawing. A second argument is that what is art is in the eye of the beholder, so each person can decide whether a photograph is art or not.

What about the arguments against it . . . ? Well, the primary one is that a camera is a machine, and a camera simply can't create art. You see, there's a, um, a kind of disconnect between the person operating the camera and the subject matter. Yes, the photographer may set the lighting or set the camera's operating functions, but, in the end, it's the film itself or the digital magic that produces the actual photograph. A true artist, the argument goes, has a brush or pencil in hand and employs his skill with it to create art. It's not just traditional artists who think this way. At the beginning of the debate, photographers themselves wanted to be separate from artists. At a meeting of the Photographic Society of London in 1853, it was argued that photographs were too literal in their interpretations of the world and therefore couldn't elevate a person's imagination to a point where they could be considered art.

And for the most part, at its inception, photography was primarily utilitarian as it was used to take portraits, to capture scenes in nature, and to record historical events. It wasn't until the twentieth century that it started moving toward a more artistic bent. In the 1960s and 1970s, photography galleries grew in popularity, but even then, photography was considered a niche form of art that hadn't been accepted by the mainstream public. In some ways, I understand this attitude. Your mother's old snapshots of your fifth birthday party surely can't be considered art. Nevertheless, there's a wide body of excellent work, such as that by Ansel Adams, which makes you stop, stare, and appreciate the finer qualities of photography.

M Student: Aren't we perilously close to the debate regarding what the definition of art is?

W1: That's correct. What is art . . . ? Are movies and comic books art . . . ? How about writing . . . ? Some may say yes while others may say that only paintings and sculptures are art. As for me, I say that if something grabs your attention and moves you at a deeper level, then it must be art no matter what the medium.

Answer Explanations

1 Ⓒ About Ansel Adams, the professor remarks, "Nevertheless, there's a wide body of excellent work, such as that by Ansel Adams, which makes you stop, stare, and appreciate the finer qualities of photography."

2 Ⓐ During the lecture, the professor first explains why photography can be considered art, and then she discusses some reasons why it should not be considered art.

B

Answers

1 Ⓑ 2 Ⓑ

| Script |

Listen to part of a lecture in an environmental science class.

M Professor: Okay, now that we've gone over the syllabus, it's time to begin this semester's class on climatology. I think the best thing for me to do would be to define what it is that we climatologists do. Climatology is the study of weather patterns over a long period of time. Through this study, climatologists hope to gain insight into the normal climate of a region. By understanding it, we can then understand when changes occur and therefore provide warnings to people about any coming changes. For example, knowing if an early frost is going to happen can help farmers avoid crop damage, or, uh, if it's likely that an unseasonable snowstorm is going to hit an area, we can let people know so that they'll have time to prepare for it.

It's also used for other purposes. Let's see . . . If you've ever traveled anywhere, one of the first things you likely did before leaving was check out the local climate. It's usually expressed in two ways: the temperature and the amount of precipitation. The charts used in most guidebooks and on websites are based on information gathered by global weather services over decades. These charts show monthly temperature highs and lows as well as the average precipitation per month. So you can find out when to avoid certain places and when to visit others based on the local climate.

W Student: How do climatologists collect all this data?

M: Climate patterns are mainly understood through the examination of historical records and present-day observations. Let's use the United States as an example. Its National Weather Service has hundreds of weather stations around the country. It has been collecting data ever since it was founded in 1870. There are also thousands of volunteer weather observers who submit whatever data they collect. Each day, these people observe the weather conditions and take records on things such as the high, low, and average temperatures, the humidity, the dew point, the atmospheric pressure, wind speed, precipitation amounts and types, and the condition of the sky, uh, such as the amount and type of cloud cover. This data gets collected and is then used by the National Weather Service to create weather maps, um, like the ones you see on TV and in the newspaper, and to make weather forecasts. It's also used to create an accurate picture of the normal climate in a region.

Three more ways we collect data are by making observations on the oceans, by collecting data in the upper atmosphere, and by using radar and satellites. On the oceans, ships collect data on weather conditions and transmit it to weather centers around the world. These reports let us construct weather maps of oceanic conditions, which are useful to fishermen and sailors since they can be used to forecast approaching storms. In the upper atmosphere, data on the temperature, humidity, and air pressure is collected, primarily by sending aloft instruments attached to weather balloons. When a balloon reaches a certain height, it bursts, and a parachute helps the instrument package float back down to the ground. Radar is used to find bands of rain and snow and, uh, even more importantly, to determine where tornadoes might develop. And satellite images can help us see where large storms are developing, especially hurricanes on the oceans.

Answer Explanations

1 Ⓑ The professor focuses on the role of the National Weather Service in collecting data in discussing it.

2 Ⓑ The professor gives some examples of the tools that are used in the process of collecting weather data.

C

Answers

1 Ⓐ 2 Ⓑ

| Script |

Listen to part of a lecture in an anthropology class.

M1 Professor: New Guinea is a large island in the southwestern part of the Pacific Ocean and is located north of Australia. It's one of the biggest islands in the world, and it's also one of the most primitive. Except for its coastline, it's extremely mountainous and is covered in dense jungle growth. These factors made New Guinea rather hard for European explorers to examine since they couldn't explore the deep interior until aircraft were invented, allowing people to fly over the island in the early twentieth century. What they saw then astonished them, for deep in the island's interior was a vast population of natives living in societies that hadn't had any contact with the outside world for thousands of years. Even today, many of the island's natives live in extremely primitive conditions compared to the rest of the world.

Due to the rugged terrain, the natives are not only isolated from the outside world but are also kept apart from one another. This has led to hundreds of languages developing over time, so the people in one valley frequently cannot communicate with the people in the next valley. It's estimated that there are more than 700 tribes in New Guinea, and those are just the ones we know about. There may be even more in the island's thick jungles.

For the most part, the natives of New Guinea are farmers living in small tribal groups. They plant crops such as yams and taro in valleys and on hillsides and also hunt and fish. They gather bananas and other fruits, and they make a starchy food called sago from palm trees. Some raise pigs, but that's not too common, and there's a relative lack of domesticated animals. Most people live in huts made from wood, but some tribes, such as the Korowai, build huts in trees very high above the jungle floor. Along rivers and swamps, tribes erect their huts on stilts to avoid flooding. Tribes are usually male-dominated societies, and they have some aspects of religion. The economy is typically subsistence based, but some tribes make handicrafts which they trade with other tribes or with outsiders.

M2 Student: Is there a difference between the highland people and the coastal people?

M1: There is a huge difference because the coastal people are more in touch with the modern world. In big coastal towns such as Port Moresby, there are cars, TVs, phones, electricity, and other trappings of modern life. Many people along the coast and along some rivers in the interior have been in contact with Western missionaries, so some of them speak Western languages. They tend to be more accepting of outsiders. But, um, that's not always the case in the interior.

M2: I've heard that lots of those isolated tribes are cannibals. That can't possibly be true, can it?

M1: Well . . . it was quite common in the past. In case you're curious, cannibalism was practiced due to the lack of protein in many natives' diets. You see, the interior has few large animals that can be hunted for meat. So people ate, well, they ate other people. That also caused warfare between tribes since murdering someone to eat that person would set off years of warfare between rival tribes. Nowadays, many tribes state that they have abandoned cannibalism, but some anthropologists are doubtful of their claims. As for what's happening deep in the jungles, who knows?

Answer Explanations

1 Ⓐ The professor comments, "Most people live in huts made from wood, but some tribes, such as the Korowai, build huts in trees very high above the jungle floor."

2 Ⓑ The student asks a question about cannibalism, so that is the reason the professor discusses it.

D

Answers

1 Ⓐ 2 Ⓓ

| Script |

Listen to part of a lecture in a zoology class.

W Professor: The life cycles of insects vary from species to species, but almost all insects start their lives as eggs. The eggs hatch, and then, in various stages, the insects grow to become adults, whereupon they can then mate and reproduce. To get to the adult stage, insects go through a process called metamorphosis, which basically means that their bodies change. How they change depends on the insect. Entomologists divide insects into three basic types based upon their process of metamorphosis. Insects exhibiting very little change are ametabolous, those which undergo gradual or partial changes are hemimetabolous, and those insects which completely change are holometabolous. Oh, yeah, if you want to know how to spell those words, please take a look at the second page of the handout I gave you at the start of class.

Ametabolous insects exhibit virtually no changes from the egg to the adult stage. Basically, these insects look like miniature versions of adults once they hatch. Over time, they eat, molt, uh, which means they shed their skin, and get bigger, but there are no major distinctive changes in their body structures as they become adults. Examples of these insects are the silverfish, firebrat, and springtail. By the way, the silverfish is not a fish but a small, wingless insect that's silvery in color and sort of moves around like a fish by wriggling its body, so that's how it acquired its name. As a general rule, ametabolous insects are small, lack wings, and have simple body structures.

The second type, um, hemimetabolous insects, go through three distinct stages in their lives: egg, nymph, and adult. The insects enter the nymph stage as soon as they hatch. The nymphs look similar to the adult versions yet are not identical. They eat, grow, molt, and finally become adults. The most common change for these types of insects is that the adult versions have wings, which emerge when the nymphs molt and grow bigger. Nymphs share nearly all the same characteristics as adults of their species, live in the same habitats, and eat the same foods, but they have no wings and cannot reproduce. Examples of hemimetabolous insects are grasshoppers, termites, and cockroaches.

M Student: Pardon me for the interruption, but isn't this type of metamorphosis sometimes called incomplete

metamorphosis? I remember reading that somewhere.

W: Yes, that's correct. Some entomologists use that term, but I think it's misleading. The word incomplete suggests that metamorphosis has been arrested in midstride, which isn't the case at all. So I'd rather that we avoid the term in this class. All right . . . ? Thanks.

The third type of metamorphosis is likely the most familiar to all of you since butterflies and many other insects go through it. It's holometabolous, which typically has four stages: egg, larva, pupa, and adult. Let's see what happens . . . First, larvae hatch from their eggs and then begin eating a great deal, whereupon they grow bigger. At some point in their lives, they form cocoons around their bodies and enter the pupa stage. During it, the larvae undergo a great transformation. Think about butterflies as an example. In their pupa stage, they develop wings and grow much larger. Then, when they become adults, they burst from their cocoons and appear much different than they were in their pupa stage. Moths, ants, bees, flies, and beetles are all types of holometabolous insects.

Answer Explanations

1 (A) While discusses holometabolous metamorphosis, the professor states, "Think about butterflies as an example. In their pupa stage, they develop wings and grow much larger. Then, when they become adults, they burst from their cocoons and appear much different than they were in their pupa stage."

2 (D) During her lecture, the professor goes into detail about each of the three different kinds of metamorphosis.

Practice with Long Passages p. 128

A

Answers

1 (B) 2 (B), (C) 3 (A) 4 (C)

| Script |

Listen to part of a lecture in a zoology class.

M Professor: The term megafauna refers to the group of animals which are larger than humans are. This term refers not just to animals alive today but to those that lived in the past but are presently extinct, too. In modern times, there are numerous examples of megafauna . . . Let's see, um, the elephant, the rhino, the whale, the big cats, the bear, the moose, and many others. There are also countless examples of megafauna that lived thousands of years ago but went extinct. Among them are the saber-toothed tiger, the giant sloth, the giant beaver, the mammoth, and, um, in more recent times, the auroch and moa, a bird that once dwelled in New Zealand. We're not positive why all of these species vanished, especially for ones that died out in the distant past. We do, however, have many theories, two of which have more adherents than the others. They are climate change and human hunting.

I want to discuss the climate change theory with you for a bit. Climate change has occurred all around the world at various times in the past. Some changes were quite dramatic when they happened during ice ages. One theory states that lots of megafauna evolved during ice ages, when they thrived, um, but when the ice ages ended, the conditions that had allowed them to exist were suddenly gone. For example, the mammoths, which dwelled on the tundra in the Northern Hemisphere, had little competition for food when the glaciers were advancing. When the glaciers started receding though, the southern lands became filled with life, and large herds of deer, elk, and reindeer began consuming a great amount of the vegetation, which likely affected the mammoth's food supply, therefore causing it to starve. Climate change also caused once-fertile lands in North Africa and Australia to turn arid and to transform into deserts, and that certainly caused the extinction of some species of megafauna. These changing conditions may have also altered the nature of the plants and animals which the megafauna relied on for sustenance, so, um, perhaps their food supplies gradually disappeared, and they couldn't adapt quickly enough to avoid dying out.

The second theory, uh, that human hunters caused the extinction of many megafauna, has numerous supporters. One reason is that there's ample physical evidence for this. Massive pits with huge collections of megafauna bones have been found around the world. The bones have spear nicks and human teeth marks. It's additionally clear from the patterns of human migration why these huge beasts fell prey to small humans. Megafauna that had lived in isolation for tens of thousands of years were suddenly confronted with skilled hunters. This most certainly happened in the Americas, Australia, New Zealand, and northern Siberia. Facing humans, the megafauna didn't know what these unfamiliar creatures were and failed to flee since their instincts didn't indicate that humans were dangerous, so they were easily hunted.

And, um, if you think about it, it was the ice ages that caused sea levels to drop, thereby forming land bridges allowing humans to cross into the Americas and other lands, at which point they began hunting the megafauna. Thus climate change and human hunting jointly factored into the demise of some megafauna.

W Student: Which would you say had a greater effect?

M: It depends on the animal mostly. Let's take the moa as an example. It was a four-meter-high bird that weighed more than 200 kilograms. Having no wings, it was flightless. Polynesian seafarers, the ancestors of today's Maori people, landed in New Zealand around the year 1300 and started hunting the bird. By 1450, the moa was gone. Maori oral histories tell of great hunts during which hundreds of moa were easily killed and then subsequently cooked and eaten at feasts. Basically, the moa had no fear of humans, and that cost them their lives. So I'd say that the moa went extinct due to human hunting. But what about a megafauna that probably went extinct on account of climate change? Here's an example of one . . .

Answer Explanations

1 (B) The professor focuses on the reasons that megafauna went extinct in the past.

2 (B), (C) The professor comments, "For example, the mammoths, which dwelled on the tundra in the Northern Hemisphere, had little competition for food when the glaciers were advancing. When the glaciers started receding though, the southern lands became filled with life, and large herds of deer, elk, and reindeer began consuming a great amount of the vegetation, which likely affected the mammoth's food supply, therefore causing it to starve. Climate change also caused once-fertile lands in North Africa and Australia to turn arid and to transform into deserts, and that certainly caused the extinction of some species of megafauna."

3 (A) In talking about human hunters and the fact that they made some megafauna go extinct, the professor implies that they were able successfully to hunt animals much larger than they were.

4 (C) About the moa, the professor states, "So I'd say that the moa went extinct due to human hunting."

Dictation

1 The term megafauna refers to the group of animals which are larger than humans are.

2 We do, however, have many theories, two of which have more adherents than the others.

3 So I'd say that the moa went extinct due to human hunting.

B

Answers

1 (C) 2 (A) 3 (D) 4 (D)

| Script |

Listen to part of a lecture in an archaeology class.

W Professor: Prior to the Roman invasion of Britain in the year 43 A.D., most of England was peopled by a group we call the Celtic Britons. They arrived in England from mainland Europe in the middle of the British Iron Age, which happened sometime around 500 B.C. Following the Roman invasion and later Anglo-Saxon invasions, the Celtic Britons were mostly assimilated. Nonetheless, we still know about them, mostly from the roughly 100 archaeological sites scattered around the country as well as the artifacts that have been excavated at them.

Celtic Briton settlements were characterized by the development of hill forts surrounded by cultivated farmland. These were forts constructed mainly of earth and wood that were placed on high hills and surrounded by ramparts and ditches. Many artifacts found at these hill forts are related to daily living and warfare, but there have also been some works of an artistic nature unearthed. Some of the items found include, hmm . . . let's see . . . carved stone statues, tankards for drinking, mirrors, spoons, buckets, cauldrons, armlets, torcs, horse bits, pins, bolts, shields, armor, swords, and daggers.

Most of these artifacts are made of stone, bronze, iron, or gold. The Celtic Britons' workmanship shows signs of influence from mainland Europe, and there's ample evidence of cultural diffusion in their artifacts. The Britons are known to have copied the common European Iron Age style known as La Tène culture. It, um, it dates from around 450 B.C. In case you're wondering, this culture is named after La Tène, a village in Switzerland that yielded a veritable treasure trove of artifacts in the mid-nineteenth century. This culture was once widespread throughout both Europe and parts of England and is commonly thought to have evolved from the Hallstatt culture that preceded it.

Take a look at this item up on the screen . . . It's a mirror found near Desborough in Northampton, called, appropriately enough, the Desborough Mirror, and dates back to the first century B.C. Note the intricate spiral patterns on the back . . . that are characteristic of the La Tène style. Putting such intricate designs on a simple device such as a mirror must have required both a considerable amount of time and great skill. It also gives us some insight into the higher levels of culture of the

Celtic people, whom the Romans later tried to depict as uncivilized barbarians. Here's another example for you . . . It's a large bronze shield known as the Battersea Shield. It was discovered in London in the Thames River mud and has been dated back to 350 B.C. Again, um, note the La Tène influence as there are spiral patterns on the three sections. A shield such as this was likely owned by a powerful chieftain or elite warrior who might have died in the river. Or, um, perhaps it was cast into the river as an offering to their gods. Without written proof, we can't be positive.

M Student: Since they made shields with bronze, did they use bronze to make their swords as well? Or did they make them with another metal?

W: By the time of the La Tène culture, most of the people living in Europe and England had switched to iron weapons. Most of the artifacts found at the La Tène site were weapons, including a large haul of Iron Age swords. There were two main types of swords used. They were the long sword and the short sword. 🎧4 In the northern parts of Europe, the long sword was the dominant weapon of choice while the short sword prevailed in southern areas.

M: Why is that?

W: **The reason has been debated endlessly.** A widely accepted theory is that the more loosely organized Celtic people preferred open warfare, which favored individual combat using long swords. The Romans and Greeks to the south favored fighting in units such as the phalanx and legion, where the short sword was more practical in tightly packed fighting units. Okay, um, since we're talking about swords, let me show you a few images of swords that have been excavated in England.

Answer Explanations

1 Ⓒ The professor points out, "Celtic Briton settlements were characterized by the development of hill forts surrounded by cultivated farmland. These were forts constructed mainly of earth and wood that were placed on high hills and surrounded by ramparts and ditches. Many artifacts found at these hill forts are related to daily living and warfare, but there have also been some works of an artistic nature unearthed."

2 Ⓐ The professor says, "It's a mirror found near Desborough in Northampton, called, appropriately enough, the Desborough Mirror, and dates back to the first century B.C. Note the intricate spiral patterns on the back . . . that are characteristic of the La Tène style." Then, the professor adds, "It's a large bronze shield known as the Battersea Shield. It was discovered in London in the Thames River mud and has been dated back to 350 B.C. Again, um, note the La Tène influence as there are spiral patterns on the three sections."

3 Ⓓ The professor organizes the lecture by describing some of the Celtic Briton artifacts that have been found.

4 Ⓓ When the professor says, "The reason has been debated endlessly," it can be inferred that there is not a definite answer to the student's question since people are still apparently debating the answer.

Dictation

1 It also gives us some insight into the higher levels of culture of the Celtic people.

2 A widely accepted theory is that the more loosely organized Celtic people preferred open warfare.

3 Let me show you a few images of swords that have been excavated in England.

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Answers

1 2, 4 2 Ⓑ 3 Ⓓ 4 Ⓐ 5 Ⓑ
6 Ⓐ 7 Ⓒ 8 Ⓐ
9 Fact: 1, 3, 4 Not a Fact: 2 10 Ⓑ 11 Ⓓ
12 Ⓓ 13 Ⓓ 14 Ⓑ 15 Ⓑ 16 Ⓒ
17 Ⓑ

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and a career center employee.

M Student: Good morning. I'm graduating this May, so I have to find a job. Is there someone here who can assist me with my résumé? I have one, but I don't think it's very, uh, professional looking.

W Career Center Employee: Well, that's what we at the career center are here for. But we aren't accepting walk-ins these days because we're so busy. You'll have to make a reservation to see one of our experts.

M: Sure. That makes sense. Is there a signup sheet or something here?

W: You can do that on our webpage. Do you know the address of the career center's webpage?

M: Um . . . No, I don't.

W: Here . . . This is a brochure with all the information you need. You can see the address clearly listed up at the top.

M: Great. Thanks a lot. Oh, uh, what's this advertisement here about a workshop?

W: The workshop will be held next Saturday. It's going to be divided into two parts, the first of which will be the process of writing a résumé. You know, uh, it will explain what should and shouldn't be included on one. The second part will be about the interview process, so you'll learn various ways to ace any interviews you have.

M: Awesome. Are there still any seats available?

W: Yes, there are about ten or so left. You can sign up for one online as well. I recommend doing it as quickly as possible though since this is annually one of our most popular events.

M: Great. Thanks again.

W: You're welcome. So . . . is there anything else you need?

M: In fact, there's one more thing I came here for.

W: Yes?

M: I'm thinking of applying for two jobs. One of them is a short-time position, but it looks kind of interesting, and the second is an internship.

W: An internship? But aren't you graduating soon? Those kinds of positions are usually reserved for sophomores or juniors.

M: It's going to be a paid internship, and the advertisement specifically mentions that this year's graduates are encouraged to apply. Apparently, if you do a good job during the six-month internship period, you stand a better-than-average chance of getting hired for a full-time position.

W: That sounds good. So, uh, what's your question about the jobs?

M: I'm a Graphics Design major, and it's necessary for me to prepare a portfolio of my work to apply for both jobs. I've got a few things to add to it, but it doesn't look very, uh, professional. Do you think I should hire someone to improve how it looks?

W: No, I don't think so.

M: Huh? Why not?

W: Anyone looking at your application won't expect a professional-looking portfolio since you're still a student. Instead, people are going to consider the work in your portfolio to see if you have the potential to be a good graphics designer in the future.

M: Ah, that makes sense.

W: But you can have someone here check out your portfolio if you like. We have a couple of individuals on staff who can give you some pointers on how to improve it.

M: All right. I guess I have to sign up for that online as well, right?

W: Actually, I'm one of those people, so if you brought your portfolio with you, I can glance at it now since it appears as though the student scheduled for this time isn't coming.

Answer Explanations

1 **Gist-Purpose Question**

2, 4 The student says, "Is there someone here who can assist me with my résumé? I have one, but I don't think it's very, uh, professional looking." Then, he adds, "In fact, there's one more thing I came here for," and he then starts asking for advice about some positions that he is applying for.

2 **Detail Question**

Ⓑ The woman tells the student, "Here . . . This is a brochure with all the information you need."

3 **Understanding Organization Question**

Ⓓ The woman explains about the workshop after the student asks, "Oh, uh, what's this advertisement here about a workshop?"

4 **Making Inferences Question**

Ⓐ When the woman states, "I recommend doing it as quickly as possible though since this is annually one of our most popular events," she implies that the workshop has been held in previous years.

5 **Detail Question**

Ⓑ The woman comments, "Actually, I'm one of those people, so if you brought your portfolio with you, I can glance at it now since it appears as though the student scheduled for this time isn't coming."

Lecture #1 [6–11]

| Script |

Listen to part of a lecture in an anthropology class.

W Professor: Our profession frequently requires us to go out into the field to dig deep in the ground in search of artifacts, but, oftentimes, um, much to our chagrin, we come up with nothing. There are, however, fortunate occasions where our work is already done for us. I'm referring to instances when farmers or construction

workers find artifacts in the course of doing their jobs. Among the stranger things that have been discovered in this manner are what are collectively termed the carved stone balls of Scotland. These are small, rounded stones, um, mostly between eight and 110 millimeters in diameter, which often have protruding knobs on them. The knobs range in number from three large ones to dozens of small ones. The majority of the stone balls have elaborate etchings on them, uh, often in spiral patterns. Up here on the screen is a picture of one . . . and here's another . . . and another. At present, more than 420 stone balls have been found. Most were unearthed in Scotland, but some were found in England.

Let's examine one in more detail . . . This is a picture of the Towie Stone. Ah, that's spelled T-O-W-I-E. It was found in 1860 near Towie in Aberdeenshire, Scotland. Interestingly enough, more than fifty carved stone balls have been found in that region. As you can see from this picture . . . and this one as well . . . the Towie Stone has four large knobs, three of which are decorated with spirals, dots, and rings. The Towie Stone is also perfectly symmetrical. Notice in this picture here . . . that the tops of its knobs are all equidistant from the center of the stone. Yes? Your hand is up?

M Student: What kinds of stones were used to make these balls?

W: A wide variety, including sandstone, greenstone, and quartzite. And for your edification, I don't think there's any particular importance to the type of stone they were made with. In all likelihood, the creators simply used whatever stones were available to them.

Ever since the first stone balls were discovered in the middle of the 1800s, there have been questions regarding their age and purpose. In case you aren't aware why we want to know this information, well, um, it's ideal to know how old the stone balls are so that we can understand more about the people who made them. And, um, just so you know, we are absolutely certain that they were carved and didn't form naturally. Unfortunately, however, these balls weren't found at well-organized dig sites. For the most part, they were found by regular people on their land, mostly by farmers who were digging in their land or planting crops. As a result, while they were considered curiosities, they didn't attract widespread attention or study for some time. That makes the job of understanding them harder since the exact places they were found are frequently unknown. We did, however, get lucky in one place. The finding of four carved stone balls at Neolithic settlements in the Orkney Islands suggests that those stones were made between 3000 and 2500 B.C., which was during the Stone Age.

Yet who made them, uh, and why, remain uncertain. 11 **The history of Stone Age cultures is full of gaps despite the fact that we're slowly learning more about them.** As for the carved stone balls, well, they could have been used in a variety of ways. One suggestion is that they were weights for the bottoms of fishing nets, but that sounds more like something a common stone would be used for, not something that a person spent a great deal of time carving. Another theory is that they were used as weapons, um, perhaps in slingshots or bolas. Er . . . a bola is a long rope weighted at each end which is then spun over the wielder's head and thrown at an enemy to entangle him. A third possibility is that the carved stone balls were used as weights for measuring grain or other foodstuffs. A fourth hypothesis is that they were status symbols. They might have been symbols of authority, uh, such as a badge of office for a high-ranking member of society. It has also been suggested that the stone balls were passed from person to person in meetings, and only the person who was in possession of the ball was allowed to speak.

Interestingly, some of the people who have examined the balls have commented on their similarity to the five Platonic solids. These are five shapes named for the Greek philosopher Plato and which are said to represent the purist geometric shapes. Here they are up on the screen. Let me point them out to you . . . They are the tetrahedron . . . the hexahedron . . . the octahedron . . . the dodecahedron . . . and the icosahedron . . . If you compare these five shapes with the carved stone balls, you'll notice many similarities. This suggests that the balls may have had a mathematical purpose. Or perhaps they were carved simply to express the beauty of these pure geometric shapes and had no practical function. Ultimately, we may never know for sure, but we can still speculate about them.

Answer Explanations

6 **Understanding Organization Question**

Ⓐ While talking about the Towie Stone, the professor shows pictures to the students and then points out various aspects of the stone on the pictures.

7 **Detail Question**

Ⓒ The professor states, "For the most part, they were found by regular people on their land, mostly by farmers who were digging in their land or planting crops."

8 **Gist-Purpose Question**

Ⓐ The professor remarks, "Interestingly, some of the people who have examined the balls have commented on their similarity to the five Platonic solids. These are five shapes named for the Greek philosopher Plato and which are said to represent the purist geometric shapes. Here they are up on the screen. Let me point them out to you . . . They are the tetrahedron . . . the hexahedron . . . the octahedron . . . the dodecahedron . . . and the icosahedron . . . If you compare these five shapes with the carved stone balls, you'll notice many similarities."

9 **Detail Question**

Fact: 1, 3, 4 Not a Fact: 2

The professor says, "These are small, rounded stones, um, mostly between eight and 110 millimeters in diameter, which often have protruding knobs on them. The knobs range in number from three large ones to dozens of small ones." Then, she notes, "One suggestion is that they were weights for the bottoms of fishing nets." She also adds, "A third possibility is that the carved stone balls were used as weights for measuring grain or other foodstuffs." However, the stones have not been found exclusively in Scotland as the professor mentions, "Most were unearthed in Scotland, but some were found in England."

10 **Making Inferences Question**

Ⓑ The professor gives several theories on the purpose of the carved stone balls, so it can be inferred that she is not sure what their purpose was.

11 **Understanding Attitude Question**

Ⓓ When the professor points out, "The history of the Stone Age cultures is full of gaps," she means that there is much that people do not know about the Stone Age today.

Lecture #2 [12–17]

Script

Listen to part of a lecture in an education class.

M1 Professor: Another experiment in educational reform took place at Black Mountain College from 1933 to 1957. It was located near Asheville, North Carolina, and was a liberal arts college where art was emphasized. The curriculum was loosely structured and gave a wide amount of freedom to the students, who often had a, uh, had a hand in deciding what they wanted to study and how the college was run. While this may sound a bit odd, it developed from the educational ideas of John Dewey, who was one of the great philosophers of education. He believed that education was a social and interactive process and that schools were not only places to acquire knowledge but also places to learn how to live and how to be members of a democratic society. He further stressed that students would learn more and thrive if they could be part of the process of deciding what and how they should study.

Just so you are aware, all of this was quite radical thinking for the early and mid-twentieth century, a time when education was more formalized and rigid. Back then, the teacher was in charge while students had little to no role in deciding what to study. Nevertheless, Dewey's ideas were adopted by the founders of Black Mountain College. It was established by a group of four professors who had been dismissed by a college in Florida for failing to take a pledge of loyalty to the school. Again, the notion of pledging loyalty to an educational institution may sound odd to us—I surely didn't have to do that when I took this job—but, um, such things were once common. The leader of the group, John Andrew Rice, decided that he wanted to work at a place which emphasized learning in an open and free atmosphere, which was not to be found on most of the formal and rigid college campuses of his time.

The school opened in the rural environment near Ashville in 1933. The main objective at this new college was to create an atmosphere where students could learn through a balanced combination of academic teaching, the development of artistic talent, and manual labor. This was done in an egalitarian society of democracy, so, um, everyone had a say in how things would be done. The school was unique in many ways. There were no course requirements, professors didn't hand out grades, and students didn't graduate until they themselves believed they were ready to do so. 17 In essence, it wasn't a place students attended for a set number of years and then received a piece of paper noting that they had done well and completed all of the necessary courses. Instead, it was a place where students could allow their minds to be set free and could be as creative as they wanted to be.

M2 Student: **It sounds to me like that was a recipe for chaos.** How did they manage to make everything work?

M1: It mostly worked thanks to the talented people whom Rice managed to attract to serve as faculty members. It also worked because of the time period when the school was founded. This was the 1930s, and many people in Europe were afraid of the rise of fascism which was happening there at the time, so large numbers of them fled to the United States. Rice managed to hire several of these people, some of whom were highly talented artists, as professors. Chief among them was Josef Albers, a German artist and educator who had worked in the German Bauhaus School. The Bauhaus School was an art school famed for bringing all art disciplines into one place where students could absorb knowledge about each of them. This, by the way, included architecture, for which that school of thought later achieved widespread

fame. The Bauhaus School was eventually shut down due to pressure from the Nazis in 1933, but this happened only after its students had spread their ideas, many of which would have a great impact on modern design and architecture, far and wide.

Under Albers's hand, the Art Department quickly became the main focus of the college. Art studies combined the traditional fine arts of painting, sculpture, and drawing with crafts, theater, music, poetry, literature, and architecture. This unique environment attracted many students and other faculty members. Among them was Buckminster Fuller, who taught there in 1948 and 1949. It was while Fuller was at the college that he developed his ideas for the geodesic dome. Albert Einstein was another famed staff member at Black Mountain College. With such noted faculty and its philosophy, the school attracted many of the nation's greatest thinkers and artists.

Sadly, the experiment came to a dismal end. Albers left the school in 1949, and the remaining faculty fell into disagreement over the future of the college. Then, the school began accumulating debts, and the number of new students decreased. In 1957, the college closed down. Some say it was a failure, but I disagree as its legacy still lives on in the work of those who passed through its doors during its brief life.

Answer Explanations

12 Gist-Content Question

Ⓓ The lecture is mostly about the history of Black Mountain College.

13 Understanding Function Question

Ⓓ The professor lectures, "The curriculum was loosely structured and gave a wide amount of freedom to the students, who often had a, uh, had a hand in deciding what they wanted to study and how the college was run. While this may sound a bit odd, it developed from the educational ideas of John Dewey, who was one of the great philosophers of education. He believed that education was a social and interactive process and that schools were not only places to acquire knowledge but also places to learn how to live and how to be members of a democratic society. He further stressed that students would learn more and thrive if they could be part of the process of deciding what and how they should study."

14 Detail Question

Ⓑ The professor tells the class, "It was established by a group of four professors who had been dismissed by a college in Florida for failing to take a pledge of loyalty to the school. Again, the notion of pledging loyalty to an educational institution may sound odd to us—I surely didn't have to do that when I took this job—but, um, such things were once common. The leader of the group, John Andrew Rice, decided that he wanted to work at a place which emphasized learning in an open and free atmosphere, which was not to be found on most of the formal and rigid college campuses of his time."

15 Making Inferences Question

Ⓑ Since Josef Albers was influential at Black Mountain College and he was greatly influenced by the Bauhaus School, the professor implies that the Bauhaus School had a great effect on the college.

16 Understanding Organization Question

Ⓒ The professor says, "Albert Einstein was another famed staff member at Black Mountain College."

17 Understanding Function Question

Ⓑ When the student makes his comment, he is offering his opinion.

Practice with Short Passages p. 142

A

Answers

1 Ⓑ
2 Visiting France: 1, 3 Staying at School: 2, 4

| Script |

Listen to part of a conversation between a student and a professor.

W Student: I appreciate your answering my question about the midterm exam, Professor Young. But before I leave, do you mind if I ask you one more question?

M Professor: Not at all, Rhonda. What is it?

W: I've been thinking about this summer and am trying to decide what to do.

M: What are your choices?

W: I could stay here at school, get a part-time job, and take a couple of summer school classes. Or, um, I could go on an archaeological dig in France.

M: The dig sounds interesting. Why don't you tell me about that?

W: Professor Hamilton in the Archaeology Department is leading it. He's going to be excavating a site in central France. He's been going there for the past, uh, three years, I think. He searches for relics from a culture that's more than 2,000 years old.

M: And how would you benefit from being one of the people helping with the dig?

W: Hmm . . . For starters, it would be a unique experience that would provide me with some hands-on training in the field of archaeology. It's also something that I'm interested in. On the other hand, it would be expensive since I wouldn't earn any money and would have to pay for everything, including my airfare there.

M: And what are the advantages of staying here for the summer term?

W: I'd get the opportunity to earn some money, which would help me during the fall semester because I wouldn't have to work so much then. And I could either take a couple of electives or focus on a core course or two during the summer session. Oh, yeah, and several of my friends will be here this summer whereas I won't know anyone on the dig in France.

M: Well, if you ask me, it seems like you already know which option has more benefits.

W: Yeah, that's true, but I badly want to go abroad. This seems like the opportunity of a lifetime, and I'd love to have the experience.

M: Since Professor Hamilton appears to go to that excavation site regularly, perhaps you could stay here this year and then go on the dig the following summer. How would you feel about doing that?

Answer Explanations

1 Ⓑ When discussing the advantages of staying at school in the summer, the student states, "I'd get the opportunity to earn some money, which would help me during the fall semester because I wouldn't have to work so much then." So if she goes to France in the summer and does not make any money, one likely outcome is that she will get a part-time job during the fall semester.

2 Visiting France: 1, 3 Staying at School: 2, 4
Regarding visiting France, the student mentions that she would be working with Professor Hamilton. She also notes, "It would be expensive since I wouldn't earn any money and would have to pay for everything, including my airfare there." As for staying at school, the student points out, "I'd get the opportunity to earn some money," and she also says, "Oh, yeah, and several of my friends will be here this summer whereas I won't know anyone on the dig in France."

B

Answers

1 Ⓐ 2 Suburbs: 1 Cities: 2, 3, 4

| Script |

Listen to part of a lecture in a sociology class.

W Professor: Large numbers of people live in suburbs these days. Just so that we're clear on the definition of a suburb, it's a small town or city located near a larger urban center. Well, uh, it's not necessarily small, but it's smaller than the city it's located close to. For the next few minutes, I'd like to discuss some general differences between cities and suburbs and focus on how they affect the people residing in them. The majority of these differences can be divided

into the following categories: structure, density, greenery, transportation, employment, education, crime, and pollution.

Let's examine structure first. In general, suburbs consist of residential housing, uh, typically single-family units or apartment complexes, yet there aren't many—if any—high-rise complexes. There may be office buildings, but nothing like you see downtown in major cities. Additionally, suburbs feature schools, shopping malls, parks, and other recreational facilities. In cities, skyscrapers are normal and serve as both office buildings and apartments. There may be some individual houses, but toward the centers of cities or their downtown areas, these types of homes are quite rare. Businesses and shopping areas dominate downtown areas. As for factories, they may be located in various parts of cities, but they're typically situated on the edges in designated business parks.

The population density is much higher in cities than it is in suburbs and fluctuates during the day. As workers come into the city from the suburbs, the population density increases in metropolitan areas, and it decreases when workers depart to go home. People also frequently visit cities at night for entertainment purposes, particularly to see movies, to attend theatrical presentations, and to go to sporting events. On the other hand, city dwellers tend to visit the suburbs or countryside on weekends to get fresh air and to enjoy greener environs. Suburbs, of course, almost always have more green spaces than cities. Parks, uh, and even tracts of forests, can be found in suburbs whereas they're mostly absent in cities.

M Student: But some urban centers, um, such as New York City, are becoming greener these days.

W: Yes, it's true that there's a current trend toward making rooftops in cities green, and more trees are being planted alongside streets. But the bottom line is that suburbs are still much, much greener than cities are.

Obviously, there's lots of movement back and forth between cities and suburbs. All of this movement is aided by dense transportation networks both within them and connecting them. Most cities have bus systems while many have subways or similar forms of transportation, and large metropolises usually have enormous fleets of taxis ready to take people anywhere. There are commuter trains that bring people to these cities from the suburbs as well. Within suburbs, however, transportation systems are much less complex. There is rarely a subway system, there are limited bus routes that make occasional stops, and there are much fewer taxis. Therefore, the primary mode of transportation in suburbs is the automobile. Interestingly, in big cities, there are large numbers of people in their forties and fifties who not only don't own cars but also lack driver's licenses and might not even know how to drive. That simply isn't the case in suburbs.

We still have a few more topics to go, but I think it's time that we stop and take a break. Let's take ten minutes off, and when we start up again, we'll begin by discussing the differences in employment between the two.

Answer Explanations

1 Ⓐ The professor comments, "Within suburbs, however, transportation systems are much less complex. There is rarely a subway system, there are limited bus routes that make occasional stops, and there are much fewer taxis. Therefore, the primary mode of transportation in suburbs is the automobile." Therefore, it can be inferred that more people drive personal vehicles than take the bus.

2 Suburbs: [1] Cities: [2], [3], [4]
About the suburbs, the professor states, "Suburbs, of course, almost always have more green spaces than cities. Parks, uh, and even tracts of forests, can be found in suburbs whereas they're mostly absent in cities." Regarding cities, the professor notes, "Most cities have bus systems while many have subways or similar forms of transportation, and large metropolises usually have enormous fleets of taxis ready to take people anywhere. There are commuter trains that bring people to these cities from the suburbs as well." She also remarks, "There may be some individual houses, but toward the centers of cities or their downtown areas, these types of homes are quite rare." And she points out, "The population density is much higher in cities than it is in suburbs and fluctuates during the day. As workers come into the city from the suburbs, the population density increases in metropolitan areas, and it decreases when workers depart to go home."

C

Answers

1 Ⓒ
2 Mutualism: [4] Commensalism: [2], [3] Parasitism: [1]

| Script |

Listen to part of a lecture in a biology class.

M Professor: Another common type of relationship in the natural world is symbiosis. In this type of relationship, two organisms interact with each other, and there are benefits either to both or only one of them. There are three basic types of symbiotic interactions: mutualism, commensalism, and parasitism. Mutualism occurs when one organism helps another and, in return, receives benefits of its own. Basically, uh, it's nature's way of saying you scratch my back, and I'll scratch yours. In commensalism, one organism benefits while the second does not, yet the second one isn't harmed in any manner. As for parasitism, one organism receives an advantage while harming the other organism. Let me give you some specific examples to more clearly illustrate what I'm referring to.

First up is mutualism . . . The acacia tree is commonly found in the tropics. Most species of acacia trees have alkaloids in their leaves, so that helps them avoid having their leaves eaten. Why . . . ? Well, the alkaloids leave a bitter taste in insects and other animals that consume their leaves. However, one species, the bullhorn acacia of Central America, lacks this defensive system. Instead, it relies upon a symbiotic relationship with ants. The ants live in hollows in the tree's thorns and consume the sweet nectar it produces. Those are the benefits the ants receive. These ants, by the way, are of the stinging variety and can cause painful wounds to animals and other insects. Whenever animals start eating the leaves, the ants attack them and therefore protect the tree. So the tree provides shelter and food while the ants provide protection.

How about an example of commensalism . . . ? Ah, here's one . . . This involves a bird called the cattle egret and cows as well as other large herbivores. The cattle egret is a large bird found in subtropical and tropical regions. Its main food source is insects. The cattle egret has developed a way easily to capture insects. Insects often hide in vegetation, which makes it hard for animals to find them. But when cattle and other large herds of herbivores move through an area, they disturb the vegetation and thereby cause the insects to leave their hiding spots. The cattle egret follows herd animals and consumes the insects they expose. The herds don't reap any benefits, so this is clearly an example of commensalism.

All right, um, on to parasitism . . . Common parasites are bacteria in our bodies, viruses, and many small insects, such as fleas and mosquitoes. Parasites may harm their hosts so much that they cause illness or even death, but, of course, not all parasites do that. Some merely harm the host yet don't cause enough damage to kill it since they need the host to survive. Many viruses are like that. Basically, they survive in a host until they can be passed on to another one. In some cases, the harm, such as a flea or mosquito bite that draws blood but doesn't otherwise cause injury, may be mild. But if that creature is a vector insect and thus one that spreads diseases like malaria, then great harm, including death, can be caused to the host.

W Student: I thought some parasites are beneficial, not harmful, and can provide mutual benefits.

M: Well, it's true that some creatures we generally regard as being parasites can provide benefits, but, uh, according to the definitions I just gave you, they aren't engaging in parasitism, are they? Instead, they're engaging in either mutualism or commensalism. Still, um, that's a good point you brought up, Clarice, so let me give you a couple of examples. Let's talk about *E. coli* bacteria . . .

Answer Explanations

1 Ⓒ The professor discusses how both the bullhorn acacia and the cattle egret benefit from the symbiotic relationships that they are in.

2 Mutualism: [4] Commensalism: [2], [3] Parasitism: [1]
About mutualism, the professor states that the bullhorn acacia and ants have that type of relationship. Regarding commensalism, the professor points out that the cattle egret and cow have that kind of relationship. He also says, "In commensalism, one organism benefits while the second does not, yet the second one isn't harmed in any manner." As for parasitism, he notes, "As for parasitism, one organism receives an advantage while harming the other organism."

D

Answers

1 Ⓑ 2 Ⓓ

| Script |

Listen to part of a lecture in a physiology class.

W Professor: Everybody sleeps, yet, uh, surprisingly, most of us aren't aware of exactly how we sleep. We know we sleep and dream, but that's it, uh, for the most part. Well, I'm going to explain the process of sleep to you. There are several phases, and scientists have a pretty decent understanding of each one nowadays. We mostly study sleep in order better to understand it and to assist people having trouble sleeping. Let's see what we've learned about sleep . . .

There are five widely recognized phases of sleep. The first four are stages one to four while the fifth is called REM sleep. That, by the way, stands for rapid eye movement, and it happens to be the stage during which people

dream. But I don't want to get ahead of myself, so let me cover each stage for you.

Stage one happens when you're drifting off to sleep. It's a light sleep, uh, sort of like a twilight area between being asleep and being awake, and you can easily wake up from it. However, your body reacts slowly during this stage, and you may have muscle contractions and experience a sensation like you're falling. Stage two refers to the onset of deeper sleep. You become more relaxed, and your breathing and heart rate become more regular. Your body, uh, body temperature drops a bit, and you're disconnected from the real world and your surroundings. Eye movement stops, and your brainwave activity slows a great amount.

Stage three and stage four are the deepest part of sleep and can be recognized on brain scans by the presence of delta waves, so we sometimes call this delta sleep. Look at the pictures of the brain scan on page 104 of your books . . . The top picture shows normal brain activity, which features bursts of rapid jumps at high frequencies. The bottom picture, on the other hand, depicts a brain scan of a person sleeping deeply. Notice the delta waves, uh, the long, shallow brainwaves. In stage three, the delta waves are combined with some sharp bursts of brain activity, but, by stage four, there are only delta waves. During stage four, the body is in such a deep sleep that it's incredibly hard to wake someone up. Your breathing slows down, your blood pressure gets lower, your muscles relax, and you get a lot of restorative rest, which, um, which recharges the body.

The fifth stage is REM sleep, which, as I already noted, is when you dream. This stage is characterized by the eyes moving rapidly yet not opening. All this movement takes place under the eyelids. During REM sleep, your body becomes totally rigid with all the muscles tense. We aren't positive, but we believe the reason this happens is so that you don't react during a dream by lashing out, kicking, falling out of bed, or doing some other potentially harmful activity. Basically, it's nature's way of keeping you from hurting yourself while dreaming. And here's something else of importance: Dreaming isn't just something that entertains, uh, or frightens, I guess, you at night. Instead, dreaming helps you get a full rest and recharged batteries. Just so you know, the average person spends about twenty-five percent of his sleeping time in REM sleep.

M Student: How long does each stage last?

W: It depends on the person, so the exact time varies. But a person progresses through all five stages every ninety to 110 minutes, so in the course of eight hours, a person might go through the cycle five times.

Answer Explanations

1 (B) About stage 4 sleep, the professor mentions, "Your breathing slows down, your blood pressure gets lower, your muscles relax, and you get a lot of restorative rest, which, um, which recharges the body." So it is likely that a person who gets a lot of it will wake up well rested.

2 (D) About stage 2 sleep, the professor points out, "Eye movement stops." As for REM sleep, the professor comments, "This stage is characterized by the eyes moving rapidly yet not opening." So she compares how much the eyes move in each stage.

Practice with Long Passages p. 146

A

Answers

1 (A) 2 (D) 3 (C) 4 (A)

| Script |

Listen to part of a conversation between a student and a student activities office employee.

M1 Student: Hi there. Is this where I'm supposed to go to sign up for some extracurricular activities?

M2 Student Activities Office Employee: Actually, you were supposed to do that a couple of days ago. We had a special event at the campus center where virtually every club and sports league on campus was present to try to attract new members. Didn't you hear about it?

M1: 🎧4 Uh, yeah, I think I remember reading something about it in the school newspaper, but I was sort of busy on that day, so I wasn't able to get to the campus center then. So, um . . . is it possible for me to sign up for any clubs here?

M2: **I'm afraid not.**

M1: Oh, that's too bad.

M2: However, um, I can give you some information about them, including when they're going to have their first meeting. Most clubs are still actively seeking members, so they almost never turn down anyone who wants to join.

M1: That makes sense. I mean, uh, for what possible reason could a club reject a student who wants to belong to it?

M2: I can think of a couple. For instance, if you don't have your own camera, you're probably not going to be welcome at any photography club meetings.

M1: Yeah, that's a good one.

M2: Anyway, um, how about telling me which activities you're interested in doing? Then, I can provide you with some information about the clubs that would be appropriate for you.

M1: All right. Is there a cycling club here? I used to go cycling every day back home, and I have my mountain bike at my apartment, but I don't get a chance to ride it very often nowadays. I'd love to do some cycling with other students.

M2: Unfortunately, there isn't a cycling club. There was one here maybe, uh . . . I guess it was around two or three years ago. But there weren't enough people interested in it, so it sort of just faded away and disappeared after a while.

M1: That's terrible. Do you think I could start up a cycling club this semester?

M2: No, you can't because applications for new clubs had to be submitted by last week. You could always put an ad in the school paper requesting that like-minded people meet you to go riding though.

M1: That's a cool idea. If enough people are interested, we could try to start the club up again next spring.

M2: That would probably be effective.

M1: So, uh, is there a basketball or soccer intramural league here? I'd like to do something active that would help me stay in shape, and either of those would be fine.

M2: The basketball intramural league doesn't start until October, but the soccer league is still accepting new players. Do you want some more information about it?

M1: Yeah, that would be awesome.

Answer Explanations

1 (A) When the student enters the office, he asks, "Is this where I'm supposed to go to sign up for some extracurricular activities?"

2 (D) When talking about putting an ad in the paper, the student remarks, "If enough people are interested, we could try to start the club up again next spring." The employee agrees, so a likely outcome would be that the cycling club will be restarted during a later semester.

3 (C) The student requests that the employee tell him more about the soccer league, so he is interested in learning more about it.

4 (A) When the employee says, "I'm afraid not," in response to the student's inquiry, "Is it possible for me to sign up for any clubs here?" he means that the student cannot register for any clubs.

Dictation

1 Is this where I'm supposed to go to sign up for some extracurricular activities?

2 How about telling me which activities you're interested in doing?

3 Do you think I could start up a cycling club this semester?

B

Answers

1 (A) 2 (B)–(D)–(A)–(C) 3 (B) 4 (D)

| Script |

Listen to part of a lecture in a biology class.

M Professor: Bacteria are all around us and live in every kind of environment on the Earth. To survive, they have adapted some rather unique ways of living. 🎧4 One such way is to form a colony of bacteria that is much stronger and more resistant than individual cells are. This colony is called a biofilm. And, uh, no, it's not a documentary about a famous person. **Biofilm is bacteria, and it's all around us in a plethora of forms.** Some are harmless while some can be quite deadly.

Biofilm can attach itself to nearly any kind of surface, including living creatures and inanimate objects. So long as it has moisture and nutrients to support the bacteria in the biofilm, just about anything can support it. For instance, that gunk you feel on your teeth in the morning prior to brushing them is a type of biofilm. You may be surprised to hear that there are 500 species of bacteria found in typical dental plaque. I imagine that makes a few of you want to spend a bit more time brushing your teeth each day, doesn't it . . . ? Anyway, uh, back to the topic at hand . . . In nature, one type of biofilm is the slime that appears on rocks in rivers. Now that I think of it, slime is a pretty good way to describe biofilm since it tends to be, well, slimy in appearance. Oh, uh, I should mention one thing . . . Biofilm doesn't just contain bacteria. In nature, all kinds of things can join bacteria in creating biofilm. What things . . . ? Well, there can be fungi, algae, yeast, protozoa, and debris such as plant matter and soil in biofilm.

W Student: Professor Harper, how do bacteria join and then

stick together once they've formed biofilm?

M: That's a good question as the process is rather interesting. Permit me to explain . . . The bacteria produce sugary molecular strands that essentially glue them all together. These sugary strands are called extracellular polymeric substances, or EPS, for short. When bacteria form these EPS strands and then come together, they can create biofilm which may eventually grow to be many centimeters thick and may have a complex three-dimensional structure that provides both strength and protection. Here's what happens . . . First, a few bacteria form on a surface, and they become connected thanks to the EPS strands. The biofilm extracts water from moisture and absorbs nutrients in various ways so that it can be sustained. Gradually, more and more bacteria—as well as other substances—join the biofilm and make it increase in size. Interestingly, this can happen in only a few hours. Now, uh, once a biofilm colony is growing and secure, it sends off small packets of bacteria to nearby areas to form new biofilm. Basically, it sends out other bacteria to colonize new places.

W: Are all biofilm harmful?

M: No, all of them aren't, but many are, and these can cause both illnesses and damage. For that reason, scientists have been studying biofilm for years to learn how to destroy it. It's a rather difficult task though. The primary issue concerns how we first began studying bacteria decades ago. Back then, scientists looked at individual bacteria cells and devised ways to kill them. From their research, they developed numerous antibacterial drugs that can be utilized to combat infections. But what these scientists didn't understand was the nature of biofilms, some of which are found in the human body. So while the medicines they created are effective at killing small amounts of bacteria that are by themselves, they are generally ineffective against biofilm colonies, which are able to resist them.

But the news isn't all bad since biofilm can also be beneficial. Right now, some researchers, including myself, are studying ways to use non-harmful biofilm to protect water and soil resources from harmful bacteria. We can also use biofilm to destroy hazardous waste that resists other means of destruction. Let me show you a short video of the work my team is doing. I think you'll find it interesting.

Answer Explanations

1 (A) The professor states, "These sugary strands are called extracellular polymeric substances, or EPS, for short. When bacteria form these EPS strands and then come together, they can create biofilm which may eventually grow to be many centimeters thick and may have a complex three-dimensional structure that provides both strength and protection. Here's what happens." So he talks about them to explain the process that allows bacteria to create biofilm.

2 (B)–(D)–(A)–(C) The professor tells the class, "When bacteria form these EPS strands and then come together, they can create biofilm which may eventually grow to be many centimeters thick and may have a complex three-dimensional structure that provides both strength and protection. Here's what happens. . . First, a few bacteria form on a surface, and they become connected thanks to the EPS strands. The biofilm extracts water from moisture and absorbs nutrients in various ways so that it can be sustained. Gradually, more and more bacteria—as well as other substances—join the biofilm and make it increase in size."

3 (B) The professor lectures, "From their research, they developed numerous antibacterial drugs that can be utilized to combat infections. But what these scientists didn't understand was the nature of biofilms, some of which are found in the human body. So while the medicines they created are effective at killing small amounts of bacteria that are by themselves, they are generally ineffective against biofilm colonies, which are able to resist them."

4 (D) The professor means that there are lots of different types of biofilm that can live in various places.

Dictation

1 Biofilm is bacteria, and it's all around us in a plethora of forms.

2 These sugary strands are called extracellular polymeric substances, or EPS, for short.

3 But the news isn't all bad since biofilm can also be beneficial.

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Answers

1 (D) 2 (C) 3 (A)
4 Fact: [1] Not a Fact: [2], [3], [4] 5 (B)
6 (D) 7 (B) 8 (D) 9 (B)
10 House of York: [2], [3] House of Lancaster: [1], [4]
11 (D) 12 (C) 13 (B)
14 First Law of Motion: [2] Second Law of Motion: [1], [4]
Third Law of Motion: [3] 15 (A) 16 (B)
17 (D)

Conversation [1–5]

| Script |

Listen to part of a conversation between a student and a professor.

W1 Professor: Lisa, you said you wanted to meet me to speak about something of importance. What's going on?

W2 Student: It's about the midterm exam, Professor Sigmund.

W1: Wasn't I clear about what information will be on the test and what types of questions will be asked?

W2: You were crystal clear regarding them. But my problem is that I can't take the test at the scheduled time.

W1: Why won't you be able to do that? The test is going to be during our regular class time, so I'm not sure what could possibly interfere with your making it to the exam.

W2: 5 Um, I'm a member of the school's volleyball team, and we've got a big tournament which is being held next Wednesday, Thursday, and Friday.

W1: In the middle of the week? What kind of person would schedule a tournament then? **That sort of event should be held on the weekend to avoid interfering with so many student-athletes' classes.**

W2: I totally agree with you, ma'am, but, uh, I didn't have anything to do with the schedule. The tournament is taking place in Akron, which is five hours away from here, so we're departing on Tuesday afternoon and won't return to campus until Sunday. I've already talked to Professor Dawson in the English Department, and he's letting me take my exam early.

W1: When?

W2: I'll be taking it in his office next Tuesday afternoon. The test is scheduled for next Friday, but he's allowing me to take it a few days early.

W1: What about your other professors?

W2: I've spoken with Professor Allston in the Chemistry Department. In fact, I visited her office a few minutes ago. She's having me take the exam this Friday. That's a bit earlier than I had wanted since it only gives me two days to prepare for it, but I'm just pleased she's permitting me to take the test early. And those are the only professors I have to speak with.

W1: You're only taking three classes this semester?

W2: Oh, no, ma'am. I'm enrolled in five classes, but only three have exams. As for my other two classes, I have to turn in papers by the end of next week, and I can submit them by email once I finish them.

W1: Ah, okay. That makes sense.

W2: So . . . Would it be all right to take the exam at an alternative time?

W1: Well, it would be unkind of me not to extend you that courtesy since your other professors are doing that. When would you prefer to take the exam?

W2: How does next Monday around, um . . . eleven or so sound? I've got free time from eleven to one then.

W1: Sorry, but I've got a class starting at eleven. What's your schedule like on Tuesday?

W2: I've got classes all morning, and then I'm taking my English exam at one thirty. Oh, and the bus leaves at four.

W1: Your English exam will take an hour, right?

W2: That's correct.

W1: In that case, what about coming here after it ends? You ought to arrive here a bit after two thirty, and then you can take my exam, which should only require forty-five minutes or so. That will give you enough time to finish and to get to wherever the bus is leaving from.

W2: It's a bit tight, but I think I can make it.

Answer Explanations

1 **Gist-Content Question**

(D) The student and professor are mostly talking about the need for the student to take her test at an alternative time.

2 **Connecting Content Question**

(C) The student tells the professor when she is going to take the exams for those two professors, so that is the comparison she makes.

3 **Making Inferences Question**

(A) When talking about her papers, the student says, "As for my other two classes, I have to turn in papers by the

end of next week, and I can submit them by email once I finish them." Since she will be at the tournament next week, she implies that she will work on her papers while she is there.

4 **Detail Question**

Fact: 1 Not a Fact: 2, 3, 4

It is a fact that the students are supposed to take the professor's test during the regular class time. But it is not a fact that the students can choose between writing a paper or taking a test. They must take a test. Nor is it a fact that the test will cover two weeks' worth of material or that it will take two hours to complete.

5 **Understanding Function Question**

(B) The professor makes the statement to show that she is displeased about when the tournament is scheduled. She doesn't want it to interfere with the students' class schedules.

Lecture #1 [6–11]

| Script |

Listen to part of a lecture in a history class.

W Professor: The death of England's King Henry V in 1422 set off a chain of events that eventually led to the Wars of the Roses. The main protagonists in the wars were two noble houses, the House of Lancaster and the House of York, which were branches of the royal House of Plantagenet. The wars lasted from 1455 to 1485, but don't be mistaken in believing that there were thirty years of continuous warfare as there were extensive lulls in the fighting at times. The conflict ended when a member of the House of Lancaster, Henry Tudor, emerged victorious at the last battle at Bosworth Field and was crowned King Henry VII. But, um, I'm getting a bit ahead of myself. For the next few minutes, I'd like to examine the root causes of the wars and then cover some of the more dramatic events and battles that happened during them. Your hand is up. Yes?

M Student: Why are they called the Wars of the Roses?

W: It has to do with the heraldic symbols of the two houses. The House of York was represented by a white rose whereas one of the symbols of the House of Lancaster was a red rose. All right, as I said a moment ago, Henry V died in 1422 and left behind an infant son, who was crowned King Henry VI. Without the strong, guiding hand of his father, Henry VI grew up to become a weak-willed man who also had a touch of mental illness. And, um, just so you know, Henry VI represented the Lancaster side of the family in the forthcoming dispute.

11 Henry's reign as king was challenged by Richard, Duke of York, who's more commonly referred to as Richard of York. **Richard's claim to the throne was based on family ties going back to King Edward III, whom we studied in the previous class.** Richard was quite a unique individual. Unlike the king, he was a strong man, um, a man of action, and he had played a prominent role in the Hundred Years' War with France that was being fought while Henry was still a growing child. Richard was also one of the wealthiest men in England and spent a great deal of his own money supporting the English army that was fighting in France.

After assuming the throne, Henry VI failed to produce a male heir for many years, and it was long assumed that Richard of York, who was a decade older than the king, would be his successor. Henry's rule was further weakened by the troublesome people who surrounded him at court. Bear in mind that he became king when he was only nine months old, so, uh, for most of his life, he had people around him who wielded power as regents. And, unfortunately, for the most part, they improperly used that power to better themselves rather than the realm. Henry also married a strong-willed woman, Margaret of Anjou, who was a niece of the French king, Charles VII. The marriage took place in 1445 and was in part an attempt to bring about peace between England and France. Yet that gambit failed, the fight renewed, and through bad management and a series of military reversals, the English lost virtually all of their possessions in France when the war came to its conclusion.

Back in England, Richard of York led a faction that desired to renew the war against France, but he was opposed by those surrounding the king. Then, in 1453, Henry and Margaret finally produced a male heir, who was named Edward. Henry, however, soon suffered a mental breakdown, and those around him took advantage of his weakness. Something else you should know is that at that time, there were a large number of noble families that had disputes with one another, and many of them started clashing. Since most nobles had their own private armies, that led to growing unrest throughout the land. There was also a great deal of unhappiness regarding the king, his wife, and their advisors. Richard of York was the focal point of the sentiment against the king and those at court, but Margaret managed to force Richard out of court life and started plotting for ways to reduce his power.

That was too much for Richard, who had sacrificed a great amount of his wealth in the unsuccessful wars in France. He was no longer the heir to the throne, and he was suddenly being challenged by the king's wife, who happened to be French. Richard gathered a force of men and marched on London as he was determined to remove those around Henry who were advising him. On May 22, 1455, the two sides met at the First Battle of St. Albans, which took place north of London and was the first physical encounter of the Wars of the Roses. Richard's forces won the battle, and Richard took over the affairs at court. He pushed Margaret aside and was named Protector of the Realm, um, so he pretty much became the main advisor to the king. However, with Henry still suffering from mental lapses, Richard was, for all intents and purposes, the ruler of England. This was just the beginning of war though. The fighting renewed in 1459. Let me tell you what happened during that year.

Answer Explanations

6 **Gist-Content Question**

(D) The professor focuses on the major events that happened prior to the Wars of the Roses breaking out.

7 **Making Inferences Question**

(B) About Richard of York, the professor says, "Henry's reign as king was challenged by Richard, Duke of York, who's more commonly referred to as Richard of York. Richard's claim to the throne was based on family ties going back to King Edward III, whom we studied in the previous class. Richard was quite a unique individual. Unlike the king, he was a strong man, um, a man of action, and he had played a prominent role in the Hundred Years' War with France that was being fought while Henry was still a growing child." She therefore implies that Richard was more of a warrior than Henry VI was.

8 **Understanding Attitude Question**

(D) The professor comments, "Bear in mind that he became king when he was only nine months old, so, uh, for most of his life, he had people around him who wielded power as regents. And, unfortunately, for the most part, they improperly used that power to better themselves rather than the realm."

9 **Detail Question**

(B) The professor tells the students, "On May 22, 1455, the two sides met at the First Battle of St. Albans, which took place north of London and was the first physical encounter of the Wars of the Roses. Richard's forces won the battle, and Richard took over the affairs at court."

10 **Connecting Content Question**

House of York: 2, 3 House of Lancaster: 1, 4

About the House of York, the professor notes, "Back in England, Richard of York led a faction that desired to renew the war against France." She also states, "That was too much for Richard, who had sacrificed a great amount of his wealth in the unsuccessful wars in France. He was no longer the heir to the throne, and he was suddenly being challenged by the king's wife, who happened to be French. Richard gathered a force of men and marched on London as he was determined to remove those around Henry who were advising him. Regarding the House of Lancaster, the professor proclaims, "Henry VI represented the Lancaster side of the family in the forthcoming dispute." She adds, "Henry, however, soon suffered a mental breakdown, and those around him took advantage of his weakness."

11 **Understanding Function Question**

(D) After mentioning King Edward III, the professor notes, "Whom we studied in the previous class," so she is implying that the students should know who he was.

Lecture #2 [12–17]

| Script |

Listen to part of a lecture in a physics class.

M Professor: 17 Sir Isaac Newton's three laws of motion are some of the mainstays of our understanding of the physical universe. I'm sure that you all studied them in high school, so most of what I say will, uh, hopefully, be a refresher for you. Nevertheless, this is important, so I need to tell you both about Newton himself and then explain all three of the laws. **If you don't mind, hold your questions until I'm done, please.**

First, a bit about Newton . . . He was an English mathematician who was born in 1642 and died in 1726. He's well known for his work in optics and for discovering the principles of calculus, which was accomplished pretty much simultaneously by a German named Gottfried Leibniz. Newton's most famous work, which we're discussing today, covered both gravity and the laws of motion. I'm talking, of course, about his work published in 1687 and entitled *Mathematical Principles of Natural Philosophy*.

In the work, Newton described the three laws of motion. Let me tell you about them. Newton's first law of motion states that an object at rest remains at rest or an object in motion stays in motion at the same speed and direction unless it is acted upon by an outside force. A simpler way of saying that is that all objects keep doing whatever they are doing unless some kind of external force affects them. A key point we need to take note of here is exactly what kind of outside force acts on the object. There are two types of forces about which you need to be aware: balanced forces and unbalanced forces. A balanced force

is one where there's a state of equilibrium. As an example, um, aha . . . Look at my desk. Notice how the textbook is just sitting there. The force of gravity is holding it down while another force, often called the normal force, is pushing up on the book from the table. These two forces . . . gravity and the normal force . . . are of equal magnitude and pushing in opposite directions, which is why the book remains at rest.

But what happens if I push the book . . . ? Watch . . . Notice how it slides across the desk. The reason is that I placed an unbalanced force on it. Eventually, it stops moving because another unbalanced force—friction from the desk—stops it. So the energy from my push is unbalanced because nothing initially counters it. And the friction is unbalanced because I stopped pushing. So these unbalanced forces started the movement of the book and then stopped it. That's how Newton's first law works. Outside forces that are balanced leave an object at rest, and outside forces that are unbalanced cause an object to move, stop, or change directions.

Newton's second law of motion is a bit more complex. It states that the acceleration of an object depends upon the net forces acting on it as well as its mass. As the force acting on the object increases, its acceleration increases. But if the mass of the object increases, then its acceleration decreases, and more net force is needed to increase its acceleration. To understand this law, first, um, you need to realize that there's an unbalanced force accelerating the object. It's also crucial to remember that when we talk about the net force, we're referring to all of the forces that are acting on the object. This net force is expressed by the formula F = MA, in which F stands for the net force, M is the mass of the object, and A is the acceleration of the object. We can also use numerical values to reach what's called a standard metric unit of force, which is, uh, unsurprisingly, called a Newton. One Newton is the force required to move a one-kilogram mass one meter per second squared. As an example of this law, think about how a small iron ball and a large iron ball would move if you push them. It will obviously take more net force to move the large ball as far as you move the small ball because of its greater mass.

And last is the third law of motion, which states that for every action, there is an equal and opposite reaction. In other words, actions come in pairs. Here's an example of what this law means . . . Think about a rocket that's blasting off to go into space. The rocket burns fuel, so hot exhaust gas is pushed out of its rear. As a reaction, a force called thrust is produced, and it pushes the rocket up into the air, thereby allowing it to get into space. Another example is a moving car . . . As a car moves, its tires spin, grip the road, and move forward, right . . . ? Well, not exactly. In reality, the spinning tires are pushing the road backward while the road is pushing the tires forward. Both the tires and the road are pushing with equal force in opposite directions. All right, um, I think that's enough, so do you have any questions for me regarding this matter, or should I move on . . . ? Yes, something on your mind . . . ?

Answer Explanations

12 Understanding Function Question

Ⓒ The professor tells the students to look at his desk and then conducts a minor experiment on it.

13 Detail Question

Ⓑ The professor remarks, "Eventually, it stops moving because another unbalanced force—friction from the desk—stops it."

14 Connecting Content Question

First Law of Motion: 2 Second Law of Motion: 1, 4 Third Law of Motion: 3

About the first law of motion, the professor tells the students why the book on his desk does not move. Regarding the second law of motion, he says, "This net force is expressed by the formula F = MA, in which F stands for the net force, M is the mass of the object, and A is the acceleration of the object." He also comments, "It will obviously take more net force to move the large ball as far as you move the small ball because of its greater mass." As for the third law of motion, he states, "And last is the third law of motion, which states that for every action, there is an equal and opposite reaction."

15 Understanding Organization Question

Ⓐ The professor gives examples of each of the laws of motion as he describes them one by one.

16 Making Inferences Question

Ⓑ At the end of the lecture, the professor indicates that he will answer a question by a student when he states, "All right, um, I think that's enough, so do you have any questions for me regarding this matter, or should I move on . . . ? Yes, something on your mind . . . ?"

17 Understanding Attitude Question

Ⓓ When the professor requests that the students "hold your questions until I'm done," it can be inferred that he does not like to be interrupted by students when he is lecturing.

Actual Test

Answers

PART 1

1 Ⓑ 2 2, 3 3 Ⓐ 4 Ⓒ 5 Ⓓ
6 Ⓐ 7 Ⓒ
8 *Vortigern and Rowena*: 2, 4 *Double Falsehood*: 1, 3
9 Ⓐ 10 Ⓑ 11 Ⓒ 12 Ⓒ 13 Ⓐ
14 Ⓓ 15 Ⓐ 16 Ⓑ
17 Fact: 1, 2 Not a Fact: 3, 4

PART 2

1 Ⓒ 2 Ⓒ 3 Ⓐ 4 Ⓓ 5 Ⓑ
6 Ⓒ 7 Ⓐ 8 Ⓓ
9 MRI: 2, 3 fMRI: 1, 4 10 Ⓓ 11 Ⓐ
12 Ⓑ 13 Ⓑ 14 1, 3 15 Ⓒ 16 Ⓑ
17 Ⓑ

PART 3

1 Ⓐ 2 2, 4 3 Ⓑ 4 Ⓐ 5 Ⓒ
6 Ⓐ 7 2, 4 8 Ⓐ 9 Ⓑ 10 Ⓓ
11 Ⓑ 12 Ⓐ 13 Ⓓ 14 Ⓑ
15 Pre-Automobile City: 2, 4 Post-Automobile City: 1, 3
16 Ⓒ 17 Ⓒ

PART 1 Conversation p.160

Script

Listen to part of a conversation between a student and a professor.

W Professor: Thanks for dropping by my office on time for our meeting, Brad. So, um, it's time to make your progress report on your term paper. How has the work on it been going since you spoke with me, uh, what was it . . . two weeks ago?

M Student: Yes, ma'am, that's correct. We had a meeting on October 28 to discuss everything I had done until then.

W: All right. Then tell me . . . What have you accomplished during that time?

M: Um . . . I completely changed my topic.

W: Whatever did you do that for, Brad?

M: Er . . . I had two reasons for doing so. First of all, I had a lot of trouble finding information on the topic I had initially chosen. And second, well, to be honest, I wasn't, um, particularly interested in the topic anyway, so I thought I should find something that I wanted to write about.

W: Hmm . . . Those both make sense, but you realize that you're running out of time, don't you? Your paper's due in two and a half weeks. Are you going to be able to complete it by the due date?

M: I think so. I've done quite a bit of work on it.

W: Tell me about it then.

M: I decided to write about the bald eagle population in this area. Apparently, the number of breeding pairs here has been increasing in the past five or so years. I thought I could study that and try to figure out what might account for the sudden increase in the bald eagle population.

W: That . . . is actually a very interesting topic, Brad.

M: Thank you.

W: What has your research indicated so far?

M: Well, um, it appears to be a combination of better weather, which has enabled the birds to breed more successfully recently, and conservation laws that are protecting the birds.

W: Okay. Now, remember that you're supposed to conduct a video interview with a noted authority as a part of your project. Have you done the interview yet?

M: No, not yet.

W: Do you have one scheduled then?

M: Yes, I do. I'm going to be interviewing Dr. Austin Fletcher at Central University. I contacted him last week, and he agreed to meet with me. Are you familiar with Dr. Fletcher and his work?

W: Very much so. We were classmates in our PhD program about twenty years ago, and we collaborate on projects every once in a while. He's a brilliant man, so I'd say you made a good choice, Brad.

M: I'm glad you feel that way.

W: Okay, one last question . . . How is the progress on your paper going?

M: Hmm . . . I've only written about five pages thus far, so I've still got around twenty more to go. 5 But I'm waiting until after I meet Dr. Fletcher to write the bulk of my paper because I've got a long list of questions to ask him.

W: **All right, Brad, I was pessimistic when you first started, but I'm feeling more optimistic about your work after considering what you have told me.** Keep working on your project and contact me if you run into any problems. Oh, um, by the way, I'll give Austin a call in a

few minutes and put in a good word for you. That might help you out a bit.

M: Thanks, Professor Jackson. I truly appreciate your doing that for me.

Answer Explanations

1 **Gist-Purpose Question**

Ⓑ The student and professor talk about an assignment the student is working on, so that is the reason he visits her office.

2 **Detail Question**

2, 3 The student comments, "I had two reasons for doing so. First of all, I had a lot of trouble finding information on the topic I had initially chosen. And second, well, to be honest, I wasn't, um, particularly interested in the topic anyway, so I thought I should find something that I wanted to write about."

3 **Understanding Function Question**

Ⓐ About Dr. Fletcher, the professor remarks, "Very much so. We were classmates in our PhD program about twenty years ago, and we collaborate on projects every once in a while." So she is making the student aware that she knows both him and his work.

4 **Making Inferences Question**

Ⓒ The professor states, "Oh, um, by the way, I'll give Austin a call in a few minutes and put in a good word for you."

5 **Understanding Attitude Question**

Ⓓ The professor's statement indicates that she had felt negatively about the student's assignment at first. However, after speaking with him, she feels much better.

PART 1 Lecture #1 p.162

| Script |

Listen to part of a lecture in an English literature class.

W Professor: There are two major controversies surrounding the works of William Shakespeare. The first, which we discussed in, um, last Thursday's class, concerns whether or not he wrote the works himself or if some—or all, I suppose—of the works attributed to him were penned by another individual. The second controversy concerns fake plays. By that, I'm referring to plays written by other individuals who then claimed they had discovered lost works authored by Shakespeare. Many false attempts took place centuries ago, so few details of them have survived until today. However, we have extensive knowledge of two such forgeries. Both were initially dismissed as fakes, but, as you'll find out momentarily, one of them might not be a fake at all.

The first story takes us back to the year 1796. A play entitled *Vortigern and Rowena* was staged in London in April. It was an historical play based on mythical events said to have taken place in fifth-century Britain. The names of the two characters in the title were legendary figures from that time. It was claimed that this was a lost play written by Shakespeare, but it was, in actuality, a hoax. The originator of this fraud was William Henry Ireland, whose father Samuel was a publisher of travel books and also happened to be quite knowledgeable about Shakespeare and his works.

Now, uh, to set the stage, so to speak, you need to understand that we have very few examples of William Shakespeare's own writing. 🎧11 For instance, there aren't any plays of his written in his own hand that have survived to the present time.

M Student: What examples of his handwriting do we have? Letters? Poems?

W: His signature.

M: **Really? That's all we have?**

W: Sadly, that's it. There are a mere six signatures that are verified as having been made by Shakespeare. While there may be other examples of writing that he made, there's nothing else experts agree on.

So, uh, all of his handwritten plays have been lost, and that has provided plenty of opportunities for forgers to create documents and to declare they were penned by Shakespeare. As for William Henry Ireland, he claimed to have been provided the play in addition to documents supporting its authenticity by someone who wished to remain anonymous. He showed the play and papers to his father, who seemed to believe they were authentic. Thus a theater group was hired, and preparations for the play to be staged for the first time in decades—or perhaps a couple of centuries—were made . . . Or so some thought.

Controversy surrounded the play before its opening night though. Numerous critics denounced it as fake with only a few claiming it was the real thing. Finally, the play was staged—for one night and one performance only—and the consensus was that, while rather good, the play simply could not have been written by Shakespeare because it lacked his flair and plotting while the characters had no depth. William Henry Ireland later confessed to having made up the entire thing. He subsequently wrote a book about how he did it and published the play as an original work of his own. However, his reputation was shattered, and he died in poverty.

Now, uh, here's another example from earlier in the eighteenth century . . . In 1727, playwright Lewis Theobald presented a play entitled *Double Falsehood*. He claimed it was a reimagining of Shakespeare's lost play *The History of Cardenio*, which was based on a minor section of Cervantes's masterpiece *Don Quixote*. Shakespearian experts believe *The History of Cardenio*, which is usually simply called *Cardenio*, was performed in 1613 and was written by Shakespeare and John Fletcher, a playwright known to have collaborated with Shakespeare on some plays. However, the manuscript was lost and never published like most of Shakespeare's plays were. Theobald claimed to have found a copy of the manuscript and used it as the basis for *Double Falsehood*. While the play is similar to the story in *Don Quixote*, Theobald changed the characters' names and parts of the plot.

Controversy dogged Theobald like it would later affect Ireland since Theobald never proved he had the original manuscript . . . or at least he never showed it to anyone who could verify its authenticity. So was it a fake or not? Until modern times, most people believed it was an attempt at duplicity. But many experts have, well, they've changed their minds in recent years. They believe the wording and plotting are so similar to Shakespeare and Fletcher's other collaborations that the hands of both Fletcher and Shakespeare must be in there somewhere, and I agree with them.

M: Isn't that way of analyzing writing rather subjective?

W: To some extent, yes, it is. There's a lot of room for error when comparing writing styles in various works. That's particularly true for Shakespeare since many experts love his work so much. The thought of finding a lost play of his would create a great amount of excitement and surely bias Shakespearean scholars in their analyses. In fact, skeptics who doubt Theobald's claim bring this up as a major point against them. But let me show you a few passages from *Double Falsehood* that may convince you that Theobald really did have a copy of *Cardenio*.

Answer Explanations

6 **Gist-Content Question**

Ⓐ The lecture is mostly about two plays that people claimed had been originally written by Shakespeare.

7 **Detail Question**

Ⓒ The professor says that after the play was staged, "William Henry Ireland later confessed to having made up the entire thing. He subsequently wrote a book about how he did it and published the play as an original work of his own."

8 **Connecting Content Question**

Vortigern and Rowena: 2, 4 *Double Falsehood*: 1, 3

About *Vortigern and Rowena*, the professor notes, "William Henry Ireland later confessed to having made up the entire thing. He subsequently wrote a book about how he did it and published the play as an original work of his own." She also says, "Finally, the play was staged—for one night and one performance only." Regarding *Double Falsehood*, the professor remarks, "In 1727, playwright Lewis Theobald presented a play entitled *Double Falsehood*. He claimed it was a reimagining of Shakespeare's lost play *The History of Cardenio*, which was based on a minor section of Cervantes's masterpiece *Don Quixote*." She further adds, "But many experts have, well, they've changed their minds in recent years. They believe the wording and plotting are so similar to Shakespeare and Fletcher's other collaborations that the hands of both Fletcher and Shakespeare must be in there somewhere, and I agree with them."

9 **Understanding Organization Question**

Ⓐ In her lecture, the professor separately talks about two plays that were written during the eighteenth century.

10 **Understanding Attitude Question**

Ⓑ The professor proclaims, "They believe the wording and plotting are so similar to Shakespeare and Fletcher's other collaborations that the hands of both Fletcher and Shakespeare must be in there somewhere, and I agree with them."

11 **Understanding Function Question**

Ⓒ When the student responds to the professor's comment by asking, "Really? That's all we have?" he is expressing his surprise. In this case, it is important to listen to his tone of voice to hear how surprised he is.

PART 1 Lecture #2 p.164

| Script |

Listen to part of a lecture in a zoology class.

M Professor: Another way animals move is by gliding. And by gliding, I don't mean that they fly in the air, glide for a bit, and then fly again. Instead, I'm talking about animals that cannot fly but are capable of leaping into the air and using their bodies to glide long distances. Examples of gliding animals are some species of fish, lemurs, snakes, lizards, geckos, frogs, possums, and squirrels. Many times,

these animals have the moniker "flying" attached to the name of their species, but don't be mistaken: This doesn't mean that they're true fliers. A true flying species is one that can take off, maintain sustained flight over a long distance, and land again in a controlled fashion. These animals typically have wings and, uh, strong shoulder muscles capable of flapping their wings at great speeds to maintain both thrust and lift. Gliding animals, in contrast, lack wings like birds and insects have, and most of them can't take off from the ground. They need to leap from high places, um, such as trees, to be able to glide. One exception is the flying fish, which leaps from the water. Ah, and gliding animals cannot glide long distances since gravity fairly quickly pulls them back to the ground or water.

W Student: Professor Nelson, if they don't have wings, then how exactly are they capable of gliding in the air?

M: Well, Jenny, they can glide due to the shapes of their bodies. You see, uh, most gliding animals have membranes that they can extend from their bodies to make them more aerodynamic. Look up here at the screen. Here are a flying lemur . . . a possum . . . and a squirrel. Did you notice that all of them have membranes between their front and rear legs on both sides of their bodies . . . ? When the animals extend those membranes and glide from tree to tree, their bodies assume a square shape. Here's a short video . . . See how the squirrel leaps . . . and extends its body so that it's shaped like a square . . . and that's it. It simply glided from one tree to another. Now, uh, flying lizards, like this one here . . . have membranes, but their membranes are more wing shaped with rounded tips, and they don't extend the full length of their bodies between the front and rear legs. See that . . . ?

Other gliding animals have different body structures. Flying frogs, like this one . . . have webbed feet that permit them to glide short distances. They can use their large, webbed feet to make small changes in their gliding paths to maneuver to where they want to go. Flying snakes have no special membranes but can flatten their bodies to give them greater aerodynamic shapes before they leap from trees. While the flying fish has appendages that resemble wings . . . they're more like pectoral fins than wings. Flying fish use great speed to propel themselves from the water and to glide short distances before landing back in the water and leaping again. Their fins flap like wings, but they don't provide lift for sustained flight like birds as they serve only to provide aerodynamic surfaces to allow gliding. In addition, flying fish often use their tailfins to strike the water, which pushes them higher in the air and gives them some thrust so that they can stay in the air for relatively long distances.

You may be wondering why these animals glide . . . For the most part, they do it either to find food or to avoid becoming food. For tree-dwelling animals, gliding from tree to tree helps them avoid predators and enables them to move to other trees to find food without having to descend to the ground and climb up another tree. Doing that wastes energy and may expose them to predators on the ground. As for flying fish, they usually leap from the water when predators are nearby. On the other hand, flying snakes tend to be predators, so gliding from tree to tree allows them to catch prey unaware.

As a general rule, gliding animals reside in tropical regions where dense forests give them plenty of high places to leap from. One exception is the flying squirrel, which resides in the temperate regions of North America and Europe. Now, uh . . . yes, Jenny? Another question?

W: Yes, please. I'm curious . . . Did gliding animals start evolving to become fliers but have their evolution, uh, arrested at some point?

M: That's a complex question, but I can safely say that, for the most part, the answer is no. Gliding animals never developed the basic body structures that would indicate they were meant to become fliers. The most obvious thing is their lack of wings or even the beginnings of wings. Other than the flying fish, gliding animals have nothing like wings, which all flying creatures use to achieve flight. There is, however, the bat. Some zoologists believe it was once a gliding animal but then evolved to become a flying animal later. You know what? This is an interesting topic, so let's talk about the bat's evolution for a moment.

Answer Explanations

12 Gist-Content Question

Ⓒ The lecture is mostly about the way that some gliding animals are capable of moving through the air.

13 Connecting Content Question

Ⓐ The professor remarks, "Flying frogs, like this one . . . have webbed feet that permit them to glide short distances. They can use their large, webbed feet to make small changes in their gliding paths to maneuver to where they want to go. Flying snakes have no special membranes but can flatten their bodies to give them greater aerodynamic shapes before they leap from trees." So he compares the form of the body part that enables each animal to glide.

14 Detail Question

Ⓓ The professor comments, "In addition, flying fish often use their tailfins to strike the water, which pushes them higher in the air and gives them some thrust so that they can stay in the air for relatively long distances."

15 Understanding Organization Question

Ⓐ The professor focuses on the fact that the flying squirrel does not live in the tropics in stating, "As a general rule, gliding animals reside in tropical regions where dense forests give them plenty of high places to leap from. One exception is the flying squirrel, which resides in the temperate regions of North America and Europe."

16 Understanding Function Question

Ⓑ The student asks a question about the evolution of gliding animals, so the professor talks about it to respond to her inquiry.

17 Detail Question

Fact: 1, 2 Not a Fact: 3, 4

The professor notes, "Many times, these animals have the moniker 'flying' attached to the name of their species, but don't be mistaken: This doesn't mean that they're true fliers." He also says, "Well, Jenny, they can glide due to the shapes of their bodies." It is not true, however, that there are more gliding animals that are predators than prey animals, nor is it true that many gliding animals evolved like the bat did.

PART 2 Conversation p.168

Script

Listen to part of a conversation between a student and a Registrar's office employee.

W Registrar's Office Employee: Hello. I believe you're next in line. What can I do for you today?

M Student: Hello. I'm here for a couple of things. First of all, I need to get a copy of my transcript since I'm applying for jobs at several different companies.

W: Sure, we can do that. But, um, did you just say that you want a single copy of your transcript?

M: Yes, that's right.

W: I'm sorry, but you are planning to apply to more than one company, aren't you? I'm pretty sure you said that.

M: Er . . . Yes, that's what I'm doing. Why do you ask?

W: 5 If you intend to submit applications to several companies, don't you need more than one copy of your transcript so that you can send one to each of them?

M: Oh, I'm just going to copy the transcript and send that instead.

W: **I'd highly advise that you not do that.**

M: Yeah? Why not?

W: First of all, sending a photocopy of your transcript isn't very professional and is likely to result in your application being discarded. Second of all, the people at virtually every company you're going to apply to expect to get a sealed copy of your transcript sent directly from this office.

M: Oh . . . I was unaware of that.

W: Shall I assume you don't have the addresses of the companies with you?

M: Uh, yeah. Right. Okay, I've never done this before, so would you mind explaining to me what the process is?

W: It's no problem at all. What you need to do is fill out, um, this form here . . . Take a look at the form . . . Notice that you need to write the name of the company or the person you're sending your transcript to, the address it should be sent to, and how many copies should go to each individual or company.

M: That's convenient. Um . . . who pays for the postage?

W: That's included in the price of your transcript. By the way, it costs $5 for each transcript. Why don't you take a couple of these forms with you, fill them out at your home, and then come back here later when you know exactly where each transcript should go?

M: Okay. Thanks.

W: My pleasure.

M: Oh, uh, I have to get one more thing, please. I also need a copy of my diploma.

W: You are going to be graduating this spring, right?

M: Yes, that's correct.

W: In that case, you can't get a copy of your diploma until July. One will be sent to you a week after graduation, but we don't print duplicate copies until one month after the ceremony is held. So, uh, unfortunately, you're going to have to wait until then to receive another copy. You can, however, fill out an online form and submit it to the office. We'll process your request, but we won't send you anything until we're allowed to. Just so you know, it costs $200 to get a second copy of your diploma.

M: Wow, that's kind of steep. You know, um, I didn't know any of what you just told me. Thanks so much for taking the time to explain the situation to me. Not everyone would do that. I appreciate it.

W: Thanks for the compliment. It's always a pleasure to help

students out.

Answer Explanations

1 Gist-Purpose Question

Ⓒ The student goes to the Registrar's office to get copies of his transcript and his diploma, both of which are official documents.

2 Detail Question

Ⓒ The woman gives the student a form to fill out and says, "What you need to do is fill out, um, this form here."

3 Making Inferences Question

Ⓐ The woman tells the student, "Why don't you take a couple of these forms with you, fill them out at your home, and then come back here later when you know exactly where each transcript should go?" The student agrees, so it can be inferred that he will go back to the Registrar's office another time.

4 Understanding Attitude Question

Ⓓ At the end of the conversation, the student says, "You know, um, I didn't know any of what you just told me. Thanks so much for taking the time to explain the situation to me. Not everyone would do that. I appreciate it." So he is pleased with how she has helped him.

5 Understanding Function Question

Ⓑ When the woman advises the student not to do what he just said he intends to do, she is implying that the student needs to come up with another idea.

PART 2 Lecture #1 p.170

| Script |

Listen to part of a lecture in a physics class.

M Professor: If you've ever been seriously ill or injured in an accident, you probably had a scanning procedure done to determine the illness or the extent of your injuries. Nowadays, the most common types are the CAT scan and the MRI scan. These acronyms stand for computerized axial tomography for the CAT scan and magnetic resonance imaging for the MRI scan. Both have been used for decades and require large machines that scan the body and then employ computers to interpret the data they collect. There's also a relatively new offshoot of the MRI machine that's called the fMRI. It stands for functional magnetic resonance imaging. And please note that the acronym fMRI uses a lower-case f while the other letters are capitalized. For the next few moments, I'd like to discuss how MRI and fMRI technologies are both similar and different.

The primary way they're the same concerns what they do. They both enable doctors to look deep inside the body to find out what's happening. Without these tools, doctors would most likely have to open up their patients' bodies to find out what's going on inside them. In addition, each of them utilizes expensive machines and computers to do the work. And, um . . . well, that's just about it for the similarities.

As for the differences . . . To begin with, MRI technology is older, having been developed in the 1970s, and it essentially gave birth to fMRI technology, which didn't appear until the early 1990s. Another key difference concerns which body parts they're used on. MRI scans can be performed on virtually any part of the body whereas fMRI scans are used exclusively on the brain. 🎧11 Would anyone like to guess why?

W Student: I think I know the answer, Professor Freeman.

M: **Well, don't keep us in suspense then, Wendy.**

W: Uh, right. Sorry, sir. I believe the reason they're used on different body parts concerns the way the two scans function.

M: Well done. Would you happen to know how each of them functions?

W: No, sir, I don't. I just remember reading somewhere that it's one of the differences between the two machines.

M: Okay, class, since Wendy isn't sure, let me tell you. And this is important because the way each machine functions is integral to understanding how they're different. Firstly, MRI technology is based on studying the anatomical structure of the body. So it provides doctors with a scan of the body part's structure and nothing else. It accomplishes this by using large magnets to align the nuclei of the water molecules in your body. From these aligned water molecules, the MRI scanner's computers can form images of the interior of the body. Basically, uh, it highlights the differences in space between various parts of the body, such as bones, muscles, and organs. From these images, a doctor can determine if a patient has a problem such as a disease or injury. MRI technology is frequently used to detect tumors, such as cancer, and to look for injuries in the bones and tissue following accidents.

fMRI technology, on the other hand, has another function and operates differently. Its main purpose is to examine the metabolic functions of body parts, so fMRI technology isn't used to look for tumors or injuries. Instead, doctors employ it to determine how a body part is working. Thus far, the technology has only been used on the brain. As for how it works, well, fMRI technology, like the MRI, uses magnetic power to align the water molecules in the brain, but the fMRI machine also calculates the level of oxygen in the blood going to the brain in real time. When brain activity increases, more red blood cells flow there, and the brain's blood vessels widen. This is something an fMRI machine is capable of picking up on. In essence, the machine can determine which parts of the brain are active in real time. As the machine scans the brain, the doctor may have the patient perform certain tasks or may ask the patient questions. When the patient responds, the machine records the level of oxygen flowing to certain parts of the brain.

So . . . what's the purpose of fMRI technology? First, the brain remains something of a mystery to us. In the last two decades, we've taken great steps forward thanks to the use of fMRI technology though. We can map the brain and understand which parts of it control specific parts of the body. And we can do that without having to open up a patient's skull and endangering that individual's life through surgery. Second, fMRI technology is useful in the field of mental health as doctors employ it to examine patients with cognitive disabilities. By taking scans of these patients, they try to determine why their brains are unable to function as nondisabled people's brains do.

W: Is fMRI technology as common as MRI technology?

M: No, it's not, um, for two main reasons. First, fMRI machines are much more expensive to manufacture. Second, the technology is used in a highly specialized area of medical research and patient care whereas MRI scans are much more regularly done on patients.

Answer Explanations

6 Gist-Content Question

Ⓒ The professor spends most of the lecture explaining the way that two types of scanning technology, the MRI and the fMRI, work.

7 Making Inferences Question

Ⓐ The professor says, "They both enable doctors to look deep inside the body to find out what's happening. Without these tools, doctors would most likely have to open up their patients' bodies to find out what's going on inside them." In stating that, he implies that doctors can avoid doing surgery on some patients thanks to those technologies.

8 Connecting Content Question

Ⓓ The professor remarks, "This is something an fMRI machine is capable of picking up on. In essence, the machine can determine which parts of the brain are active in real time. As the machine scans the brain, the doctor may have the patient perform certain tasks or may ask the patient questions. When the patient responds, the machine records the level of oxygen flowing to certain parts of the brain." It is therefore likely that a person doing an activity while having an fMRI scan done will enable the doctor to learn which part of the patient's brain is being used.

9 Connecting Content Question

MRI: 2, 3 fMRI: 1, 4

Regarding the MRI, the professor notes, "Firstly, MRI technology is based on studying the anatomical structure of the body," and further states, "MRI technology is frequently used to detect tumors, such as cancer." As for the fMRI, the professor comments, "Second, fMRI technology is useful in the field of mental health as doctors employ it to examine patients with cognitive disabilities." He also remarks, "No, it's not, um, for two main reasons," when a student asks if fMRI technology is as common as MRI technology.

10 Understanding Organization Question

Ⓓ The professor talks about each type of technology independent of the other in his lecture.

11 Understanding Function Question

Ⓐ When the professor tells the student, "Well, don't keep us in suspense then, Wendy," he is encouraging her to answer his question. He says this in response to the student stating, "I think I know the answer."

PART 2 Lecture #2 p.172

| Script |

Listen to part of a lecture in an anthropology class.

W Professor: At this time, I'd like to discuss something new by taking a broad look at the indigenous tribes of Southeast Asia. This region encompasses a wide area, including the Philippines, Indochina, Thailand, Indonesia, and Myanmar. Indochina, by the way, consists of Vietnam, Cambodia, and Laos. So, uh, we're talking about a fairly vast area. Interestingly, the number of indigenous people residing in this part of the world is hard to determine because they often live in remote areas and because many governments don't recognize their status as indigenous tribes. I'll speak more on that in just a moment.

To begin with, let me state what exactly an indigenous tribe is. In simplistic terms, it's a group of people who have a distinctive . . . language, culture, customs, and

social structure from the dominant ethnic and linguistic groups of the nation in which they reside. Indigenous people are sometimes the original settlers of a land but were later overshadowed by new arrivals who moved to the land and became its dominant people. Classic examples of this include the European domination of North and South America as well as Australia and New Zealand. In Southeast Asia, there's usually less of a clear ethnic division between the dominant group and the indigenous groups since the dominant groups are also of Asian origin and may, at least on the surface, appear similar to the indigenous groups. Despite this, there are numerous differences between the two, and this has led to years of clashes over discrimination with regard to the rights, property, and customs of indigenous people.

Let me break down the number of indigenous people in Southeast Asia by nation. Up on the screen is a map of the region . . . It shows a wide range of places where indigenous people live and what percentage of their individual nation's entire population they are. At the low end is Thailand, where most of the population is ethnic Thai or Thai-Chinese, and less than two percent of the population is comprised of indigenous people. This represents about 1.1 million people divided into thirty-four distinct tribes. At the other extreme is Laos, where it's estimated that between thirty-five and seventy percent of the population is made up of indigenous people. That number could be anywhere from two and a half to five million people.

M Student: Why are the numbers for Laos so sketchy?

W: The main reason is that the indigenous people are scattered around the nation in the jungle and hilly regions, making it difficult to conduct an accurate census. Now, uh, allow me to ask and answer the question that's surely on most of your minds . . . Why aren't they the dominant people of Laos if there are so many of them? Well, look at the next number. There are forty-nine different tribes of indigenous people in Laos. These include the Hmong, Yao, Dao, Khmer, and Shan people. So even though the dominant Lao people's numbers aren't much greater than those of the indigenous tribes, they're united and have control of the government and political structure, thereby bestowing upon them the power in the nation. Malaysia's and Vietnam's indigenous people are even more divided, um, with fifty-three tribes in Vietnam and ninety-seven in Malaysia. Take a look at Indonesia, which is the most divided of all. There are approximately 700 distinct tribes there, but, uh, you should know that the government only recognizes around 360 of them as indigenous groups.

17 And that brings us to a big problem: getting recognition. **For the people in power, recognizing a group of people as an indigenous tribe is fraught with danger.** First, recognition status gives them many rights that the people in charge may not desire the tribes to have. It means that their lands and way of life will become protected. According to the United Nations Declaration on the Rights of Indigenous People, this means that indigenous people have the right to self-determination, allowing them to have their own political system and to pursue their own social and economic development. The declaration also states that all resources on a tribe's traditional lands belong to the tribe and that the people living there have the right to refuse any development of their land and are protected from being forcibly removed from their land. Now, um, imagine if some geologist discovers, say, oil, diamonds, or gold on a tribe's land. According to international law, a recognized tribe would possess the rights to those underground treasures. But if a tribe has never been recognized as being indigenous, then it would make it much easier for the government to let mining companies go onto the land and extract the wealth.

That has led to years of conflict between indigenous tribes and the dominant ethnic groups in places across Southeast Asia. Even in instances where tribes have been declared to be indigenous, they've sometimes been tricked into surrendering their rights by governments and private companies, or their lands have simply been seized outright when governments nationalized the land. Let me give you a couple of examples so that you'll know what I'm talking about . . .

Answer Explanations

12 Gist-Content Question

Ⓑ The professor mostly talks about various indigenous people that live in the countries of Southeast Asia.

13 Understanding Organization Question

Ⓑ The professor comments, "Classic examples of this include the European domination of North and South America as well as Australia and New Zealand."

14 Understanding Function Question

1, 3 The professor tells the students, "Up on the screen is a map of the region . . . It shows a wide range of places where indigenous people live and what percentage of their individual nation's entire population they are."

15 Making Inferences Question

Ⓒ The professor notes, "At the other extreme is Laos, where it's estimated that between thirty-five and seventy percent of the population is made up of indigenous people. That number could be anywhere from two and a half to five million people." In saying that, she implies that there may be more indigenous people in Laos than there are Lao people.

16 Making Inferences Question

Ⓑ At the end of her lecture, the professor states, "Even in instances where tribes have been declared to be indigenous, they've sometimes been tricked into surrendering their rights by governments and private companies, or their lands have simply been seized outright when governments nationalized the land. Let me give you a couple of examples so that you'll know what I'm talking about."

17 Understanding Attitude Question

Ⓑ The professor means that there can be problems for governments if they recognize indigenous tribes living in their countries.

PART 3 Conversation p.176

| Script |

Listen to part of a conversation between a student and a professor.

W1 Student: Professor Landers, I'm here for our two o'clock appointment.

W2 Professor: Good afternoon, Emily. Please come in and take a seat.

W1: Thank you very much, ma'am.

W2: So . . . you requested this meeting. How about going ahead and telling me what's on your mind?

W1: Sure. Basically, I'm thinking of taking on a second major, and I'd like to have your opinion of that.

W2: Which major are you considering adding? Knowing that will enable me to determine whether it's a good idea or not.

W1: Ah, right. Well, I've been thinking . . . Since the world is becoming more and more interconnected these days, it's probably not smart for me only to major in Economics. I mean, uh, what happens in other countries affects us here, so I think I should be aware of what's going on in places around the world.

W2: So you're contemplating majoring in History then?

W1: I gave that some thought, but many of the requirements for a History major are for ancient and medieval history, which I'm not particularly interested in. 4 Instead, I believe I'd like to get a second major in International Relations. By doing that, I could see the connections between countries much better, and I'm positive that would help me as a budding economist.

W2: **You may be on to something there, Emily.**

W1: So you like my proposal?

W2: That's affirmative. I've had quite a few students do the same two majors in my one and a half decades here at this school, and not one of them has ever expressed any regret for that decision.

W1: Wow, that sounds great.

W2: However . . .

W1: Yes?

W2: You're currently in the fall semester of your sophomore year, so, uh, starting next semester, you're really going to have to focus on taking the right classes. The International Relations major here requires students to take an abnormally large number of classes, so you're going to be busy for the remainder of your time at school. By that, I mean that you should expect to take a full load of classes each semester. You'll need to attend summer school as well.

W1: Yes, ma'am. I researched that and figured out that I'm probably going to have to take at least three summer school classes over the next two years in order to graduate on time.

W2: You don't mind doing that?

W1: 5 Not at all. I stayed here this past summer and worked on campus. It was a good experience, so I'll probably try to get another summer job. It won't be a problem for me to take classes as well.

W2: **Okay, it looks like you've got that covered.** Have you selected an advisor in the International Relations Department yet?

W1: I have yet to do that because I've only taken one course in that department. I don't have to declare a second major until the fall semester in my junior year, so I don't think it's necessary for me to rush. I'll take two classes in that department next year and one or two summer school classes, so I'd prefer to meet some of the other professors there before I make a decision.

W2: Good thinking. You wouldn't want to make a hasty choice.

W1: I agree.

W2: Well, it looks like you're going to have little free time from now on. I wish you the best of luck, Emily.

W1: Thanks for saying that.

Answer Explanations

1 Gist-Content Question

Ⓐ The student and professor mostly talk about the student's decision to double-major while at school.

2 Detail Question

2, 4 The professor tells the student, "The International Relations major here requires students to take an abnormally large number of classes, so you're going to be busy for the remainder of your time at school. By that, I mean that you should expect to take a full load of classes each semester. You'll need to attend summer school as well."

3 Making Inferences Question

Ⓑ When talking about deciding on an advisor in her new major, the student states, "I have yet to do that because I've only taken one course in that department. I don't have to declare a second major until the fall semester in my junior year, so I don't think it's necessary for me to rush. I'll take two classes in that department next year and one or two summer school classes, so I'd prefer to meet some of the other professors there before I make a decision." So it can be inferred that she will find a new advisor during her junior year.

4 Understanding Function Question

Ⓐ When the professor says, "You may be on to something there, Emily," she is expressing her support for the student's decision.

5 Understanding Attitude Question

Ⓒ When the professor mentions, "Okay, it looks like you've got that covered," she is implying that she is satisfied with what the student just told her.

PART 3 Lecture #1 p.178

| Script |

Listen to part of a lecture in a history class.

M Professor: All right, let's get started . . . We're going to begin today's lecture by talking about a significant event in English history which took place in 1381. I'm referring, of course, to the Peasants' Revolt. It started in the regions of Essex and Kent in southeast England and later spread to the northern and western parts of the country. Many government officials were killed during it, and, um, for a time, London itself was occupied by rebels. For the most part, the revolt involved mobs of peasants led by clergymen and artisans. It began in late May of 1381 and wasn't completely put down until November. Estimates of the number of dead vary, but it's certain that several thousand people died during this period of turmoil.

So . . . what caused it? Well, a variety of things did. The primary cause was the lingering effects of the Black Death, the epidemic that swept through England in the late 1340s and killed more than a third of the entire population. As a result of the Black Death, the country experienced both social and economic upheaval. Suddenly, peasant labor was in great demand since such a large number of people had died, so, for once, the peasants had an advantage over the nobles and therefore began making demands for better working conditions. Among these demands were, um, were higher wages and the right to move to new locations in search of better work, something they weren't allowed to do under feudalism. Soon, English lords and landowners were clashing over access to the reduced pool of labor. In 1351, the government passed a law called the Statute of Laborers. It stated that peasants couldn't be paid more than what they had earned in 1346, which was prior to the onset of the Black Death. It additionally banned lords and landowners from offering higher wages. A third clause stated that no peasants could move off the land they lived on to seek work elsewhere. In essence, the law solidified the country's feudal traditions.

Naturally, the peasants were upset by the law, which instilled in them a fatalistic view that their lives would never improve no matter what happened. After all, um, they were tied to the land, their wages were frozen, and they had to continue providing free labor for their lords and the Church as often as two days a week. On top of all that, inflation started in the following decades. Well, wages increased slightly, um, but not enough to keep up with rising prices. As you can see, they had difficult lives, so it's no wonder that they eventually rebelled due to the harshness they endured. For the peasants, the proverbial straw that broke the camel's back came because of England's long war with France, which was later termed the Hundred Years' War. To pay for the war, the government increased taxes. In 1377, a poll tax on every adult in the kingdom was imposed. It was supposed to be a one-time affair, but the need for money to finance the war was so great that it was levied twice more. When the poll tax was levied for the third time in 1380, the revolt began soon afterward.

It started in Essex, where many peasants had outright refused to pay the 1380 poll tax or went into hiding to avoid the tax collectors. In spring of 1381, the government sent more tax collectors out. On May 30, one collector assembled the people of three villages in Essex and instructed them that they not only had to pay the tax but that they also had to pay for the people who didn't show up. The peasants naturally became irate, so a riot began, during which the tax collector was beaten and some of the men accompanying him were killed. The rioting spread, and before long, much of the countryside was in revolt with people attacking landowners, burning manor houses, and causing general mayhem.

W Student: Where was the army? Why didn't they put down the revolt?

M: Most of the army was in France fighting the war, so, um, initially, there were few armed men to stop the revolt. As a result, the unrest spread to Kent, and a few leaders emerged. They included a clergyman named John Ball and a peasant named Wat Tyler. The peasants marched on London, where the mobs looted the Tower of London, killed some high officials, and destroyed tax records. King Richard II, who was but fourteen years of age and extremely inexperienced, met the peasants on June 14 and acceded to all their demands. At another meeting the next day, the king's men feared Wat Tyler was going to attack Richard, so they killed Tyler, which took some of the steam out of the rebels. Then, the government raised a 4,000-man force in and around London, and the bloodshed really began. John Ball and several other leaders were captured and executed. Throughout the long summer and into the fall, the rebels were attacked and dispersed. Ultimately, Richard didn't give into their demands except to end the poll tax. He claimed his promises had been made under duress, so he therefore didn't have to fulfill them.

Answer Explanations

6 Gist-Purpose Question

Ⓐ Before talking about the Black Death, the professor states about the Peasants' Revolt, "So . . . what caused it? Well, a variety of things did. The primary cause was the lingering effects of the Black Death, the epidemic that swept through England in the late 1340s and killed more than a third of the entire population."

7 Detail Question

2, 4 About the Statute of Laborers, the professor remarks, "In 1351, the government passed a law called the Statute of Laborers. It stated that peasants couldn't be paid more than what they had earned in 1346, which was prior to the onset of the Black Death. It additionally banned lords and landowners from offering higher wages. A third clause stated that no peasants could move off the land they lived on to seek work elsewhere."

8 Understanding Attitude Question

Ⓐ The professor notes that he understands why the peasants revolted in commenting, "Naturally, the peasants were upset by the law, which instilled in them a fatalistic view that their lives would never improve no matter what happened. After all, um, they were tied to the land, their wages were frozen, and they had to continue providing free labor for their lords and the Church as often as two days a week. On top of all that, inflation started in the following decades. Well, wages increased slightly, um, but not enough to keep up with rising prices. As you can see, they had difficult lives, so it's no wonder that they eventually rebelled due to the harshness they endured."

9 Detail Question

Ⓑ The professor says, "For the peasants, the proverbial straw that broke the camel's back came because of England's long war with France, which was later termed the Hundred Years' War. To pay for the war, the government increased taxes. In 1377, a poll tax on every adult in the kingdom was imposed."

10 Making Inferences Question

Ⓓ The professor remarks, "At another meeting the next day, the king's men feared Wat Tyler was going to attack Richard, so they killed Tyler, which took some of the steam out of the rebels." In stating that the death of Wat Tyler "took some of the steam out of the rebels," the professor implies that Tyler was influential amongst the peasants.

11 Understanding Organization Question

Ⓑ The professor talks about the events in the Peasants' Revolt in the order that they happen, so he uses chronological order to describe them.

PART 3 Lecture #2 p.180

| Script |

Listen to part of a lecture in an architecture class.

W Professor: Urban design has been ongoing for thousands of years, so it may come as something of a surprise to learn that during that entire time, um, for the most part, the structures of cities have been based on four common design shapes. By design shapes, I am referring to how city blocks are designed. Imagine looking down on several cities from above as if you were in a helicopter or plane . . . You'd be able to distinguish four main designs: medium-sized rectangular blocks, small blocks in various shapes, larger blocks in various shapes, and small square blocks.

I'd like for you all to open your textbooks to page 101. On that page—as well as the next three or four pages—you'll see examples of these four designs. The pictures in your textbooks should enable you to visualize what I'm talking about. Oh, and in case you're curious, the information I'm going to give you comes from a study of 131 cities around the world. The study's authors examined the layout of each city from a mathematical point of view. Take a look at the four pictures on page 101 . . . You'll see that Buenos Aires, Argentina, has a layout of medium-sized rectangular blocks . . . Athens, Greece, is comprised of small blocks in various shapes . . . New Orleans, United States, has a layout of larger blocks in various shapes . . . And, finally, Mogadishu, Somalia, has a pattern of small, square blocks.

M Student: 17 I find it hard to believe that every one of the cities they examined fit perfectly into a mere four designs. That doesn't, um, that simply doesn't seem possible.

W: Please don't misunderstand, Todd. **They don't fit—as you said—perfectly into the four design types, but they all conform in some way to the four basic designs I mentioned while also possessing unique aspects of their own.** And even within some cities, there are differences between districts. Take, for example, New York City and its five boroughs of Manhattan, Brooklyn, Staten Island, Queens, and the Bronx. You can see their layouts on the next page, um, by the way . . . Manhattan has a regular structure of small blocks while the blocks in the other four boroughs aren't so regular or small. Staten Island, for example, has twice as many medium-sized blocks as it does small blocks, and its blocks are more rectangular in shape than square.

Overall, the greatest differences can be seen in cities founded before the invention of the automobile and those established after its creation. Pre-automobile cities encompass the vast majority of cities in Europe and Asia and a few in the Americas, Africa, and Oceania. These cities often developed in a haphazard manner without any of our modern concerns for automobile traffic. There are exceptions though. Most of them are cities that had some initial structured planning, um, like many European cities that grew up where Roman cities had once been. Yet even these cities developed somewhat randomly as their populations grew, and many were subsequently redesigned in modern times to take the automobile into account. This has resulted in some cities having sections with winding streets and misshapen blocks alongside sections with streets laid out in a grid pattern and more square and rectangular blocks.

In contrast, post-automobile cities developed with more structure, with more regulated street design, and with more grid-like patterns that considered automobile traffic. You can see both types of cities in the United States. Cities on the east coast that were established early on, such as Boston, have random patterns to their block arrangements with a wide variety of shapes and sizes. I believe the picture of downtown Boston is on page 103 . . . And even a city such as Washington, D.C., which was planned, has more of an irregular grid pattern mostly because its designers designed long, wide boulevards that cut diagonally across the city and met at intersections, thereby giving the city many irregularly shaped blocks. Cities farther west that grew during the age of automobiles, such as Los Angeles, have more grid-like patterns and blocks shaped and sized in more regular ways. They also have wider streets and many freeways to take into account the growing traffic problems modern cities face. In modern times, many pre-automobile cities in the U.S. have gone through massive redesigns to make it easier for drivers.

Another consideration of urban design that can lead to less-than-ideal grid patterns and regular blocks is the terrain. Rivers, mountains, and coastlines can all disrupt the flow of regular block layouts in urban areas. Paris, for example, has the Seine River flowing straight through it while the Thames Rivers cuts through the heart of London. New York is built on several islands, so designing and building its streets required taking its coastlines and rivers into consideration. So, um, it's obvious that these four basic designs aren't perfect examples of all cities. Nevertheless, most of them do share certain characteristics that make them similar to one another.

Answer Explanations

12 Gist-Content Question

Ⓐ Most of the professor's lecture is about how individual sections of cities such as blocks are shaped.

13 Understanding Function Question

Ⓓ The professor instructs the students, "I'd like for you all to open your textbooks to page 101. On that page—as well as the next three or four pages—you'll see examples of these four designs. The pictures in your textbooks should enable you to visualize what I'm talking about."

14 Connecting Content Question

Ⓑ About the two places, the professor says, "Manhattan has a regular structure of small blocks while the blocks in the other four boroughs aren't so regular or small. Staten Island, for example, has twice as many medium-sized blocks as it does small blocks, and its blocks are more rectangular in shape than square." So she compares the sizes of their blocks in her lecture.

15 Connecting Content Question

Pre-Automobile City: 2, 4 Post-Automobile City: 1, 3
Regarding pre-automobile cities, the professor states, "Pre-automobile cities encompass the vast majority of cities in Europe and Asia and a few in the Americas, Africa, and Oceania. These cities often developed in a haphazard manner without any of our modern concerns for automobile traffic." As for post-automobile cities, the professor notes, "They also have wider streets and many freeways to take into account the growing traffic problems modern cities face."

16 Detail Question

Ⓒ The professor points out, "Another consideration of urban design that can lead to less-than-ideal grid patterns and regular blocks is the terrain. Rivers, mountains, and coastlines can all disrupt the flow of regular block layouts in urban areas."

17 Understanding Function Question

Ⓒ The professor is clarifying a statement she made earlier in response to the students comments.

Memo

Memo

Memo