以下为新第 1 套的听力原文,网站上每篇做完后点击 quit/save 查看对错情况,要回听音频重新点击进去,下面的音频进度条是可以拖动和调节的。新十套的音频只有网站上才有,可以随时播放,点击 quit/save 可以查看正确答案。

#### 新第一套

### Listen to a conversation between a student and his Journalism professor.

# 【公众号"四箭齐发托福"】(man) Excuse me, Professor Hawk?

(*woman*) Hi, James, what do you need? I hope you're not here to ask for an extension on the final paper. I've had three of those requests already this morning and I did make it clear several weeks ago that this assignment really should be in on time.

(man) Oh, uh, I just have to finish my bibliography. I'll definitely have it done by Monday.

(woman) Great! Just a reminder, did you get the worksheet I handed out last time, showing how to format the references in your bibliography? After all the effort of planning and research, doing all the reading and, of course, writing and editing the paper, I don't want to see anyone losing points on the references, since, you know, a properly organized bibliography's worth fifteen percent of your overall grade.

(man) Yeah, I have it. I'll make sure to double check, thanks. Uh, I actually came to see you about something else.

(woman) Oh?

(man) You're my academic adviser, so,

(woman) Ah, an advising question, go ahead.

(*man*) Well, a while back, I applied for this internship with a newspaper in town, as an editorial intern. So, I get to work on real articles and everything. I wasn't really expecting to get it, since I still have another year of college to go. But I was surprised, I got the internship.

(woman) That's great, James, for this summer?

(*man*) Actually, it's for next fall and it's full-time, too. So, if I accept it, and I really what to accept it, well, I need to take a semester off. Do you think that's possible?

(woman) Uh, it's possible, but that's a big decision, James.

(man) I know. The thing is, it's a great opportunity. My friend always says, uh, my friend Jenny is a reporter now, and she says that her internship was one of the best experiences she has as an undergrad, since it let her apply what she learned in school to the context of her future career. Plus, it gave her an edge when she started applying for jobs. I'd love to secure a job right after I graduate.

(woman) Well, an internship doesn't necessarily guarantee you a job offer. Plus, taking time off can cause some students to lose focus on their studies. Don't forget that when you come back in the spring, it's to academics, no matter how exciting the lure of working and making money seems now.

(*man*) Actually, that's why I want to do it. I've been feeling kind of burnt out lately, with all the schoolwork, so I think a real job experience would be energizing, especially since it's related to my classes. It might just be the break I need to come back to my final year of school with, like, renewed energy, you know?

(woman) Well, if you're sure about your decision (man) I am.

(woman) OK, uh, could you request or get the paperwork for time off from the registrar? We can set up an appointment to fill it out together.

(man) Thanks, Professor Hawk. I really appreciate it.

- 1. Why does the student go to see the professor?
  - A) To request an extension on the final paper
  - B) To get advice about his research topic
  - C) To discuss the possibility of taking time off from his studies
  - D) To ask for help with an internship application
- 2. What does the professor emphasize about the final paper? [choose two answers]
  - A) It should be longer than the other assignments for the course.
  - B) Students must follow the original research plan they submitted.
  - C) Students should not need an extension for the assignment.
  - D) A well-organized bibliography is important to the assignment.
- 3. Why does the student talk about his friend?
  - A) To explain what he hopes to gain from an internship
  - B) To show the professor what type of internship he wants
  - C) To emphasize the difference between an internship and a reporting job
  - D) To illustrate what the newspaper is looking for in an intern
- 4. What does the professor say about internship?
  - A) They are not as enjoyable as most students think.
  - B) They do not always provide opportunities to apply academic skills.
  - C) They are rarely offered to undergraduate students.
  - D) They do not always lead to a job offer.
- 5. What is the student's attitude toward taking time off from classes?
  - A) He believes it may change what he plans to study in the spring.
  - B) He believes it will allow him to work harder when he returns to school.
  - C) He is worried that he may forget what he has already learned.
  - D) He considers his final year of school less important than an internship.

# Listen to part of a lecture in an Astronomy class

【公众号"四箭齐发托福"】(*male professor*) Many astronomical conclusions have been based on the assumption that the planets in our solar system formed in the exact orbits that they're currently in. So, it's significant that over recent decades an idea has been gaining momentum that the orbits of planets have changed since the solar system first formed, either gotten slightly larger or slightly smaller, what's called **planetary migration**.

The hypothesis of planetary migration might seem far-fetched at first but it's not implausible. We're pretty certain that the orbits of smaller celestial bodies like asteroids and planetesimals,

even Earth's Moon, have changed since the solar system formed. The Moon, in particular, is ten times farther from Earth now than it was when it formed. So if the Moon's orbit could change, why couldn't planets' orbits do the same?

Let's consider the four gas-giants, Jupiter, Saturn, Uranus, and Neptune. According to the migration hypothesis, when these gas planets were forming, millions of planetesimals, small bodies of rock and ice, remained in their midst. The planets and planetesimals exerted gravitational forces on one another and, as a result of these gravitational interactions, well, some planetesimals got pulled into the cores of gas-giants but the majority of planetesimals got scattered, ejected from the solar system.

These gravitational interactions also nudged the gas-giants into new orbits. Saturn, Uranus, and Neptune all gained orbital energy through this process. Their orbits expanded. They migrated a bit farther away from the Sun. Jupiter, on the other hand, probably due to its massive size, lost orbital energy, so it migrated slightly closer to the Sun. So, that's the theory. But what's the evidence that it actually happened?

To answer this question, let's focus on Jupiter and Saturn and on the asteroid belt. Now, the asteroid belt is that small region between Mars and Jupiter that's filled with asteroids and the asteroids are spread fairly evenly throughout the belt, except in a few regions where there are gaps, where there aren't any asteroids. These gaps could be the result of asteroids having been ejected as a result of the gravitational influence of Jupiter and Saturn. But this could happen only if those two planets had moved; migrated from one orbit into another.

Now, this idea was tested by means of a computer simulation. A computer model was created of the solar system, with the hypothetical missing asteroids filled in, with Jupiter and Saturn in their presumed old orbits, and with gravitational interactions between the planets and the asteroids factored in. Calculation showed that when the orbits of the asteroids brought them close to Jupiter and Saturn in their old orbits, some asteroids would have been hurled out of the asteroid belt. And the resulting asteroid belt from the simulation looked quite similar to the actual asteroid belt now with gaps in the same places. And Jupiter and Saturn ended up in the orbits they're in now.

More concrete support for planetary migration comes from the discovery of other solar systems with large Jupiter-like planets that are not what we think they should be. You see, a planet as large as Jupiter cannot develop close to its sun, because when gas-giants are still forming, they pick up mass by pulling in dust and gas as they orbit their sun. That's how they grow. Well, if a planet were to form very close to its sun, its orbit would be small and it passes through a small volume of space. So it would pick up only a relatively small amount of dust and gas, which means its mass would be small.

For a planet to grow to Jupiter's size, it has to start out far from the sun, because only in a large orbit could it encounter enough gas and dust to grow to a massive size. And, in fact, our Jupiter has always been far from our Sun. But, we've discovered what are called hot Jupiters in other solar systems. These are planets that are similar in size and makeup to our own Jupiter but are

very close to their suns, closer than the planet Mercury is to our Sun. So, they are very hot. They're far too close to their suns to have formed in these positions. But, one way to explain the current positions of these hot Jupiters is to say they formed farther out and then migrated to their current Mercury-like positions.

- 1. What does the professor mainly discuss?
  - A) The idea that the orbits of some planets have changed over time
  - B) The theory that our solar system once contained more planets than it does now
  - C) Whether the gas-giant planets exert gravitational influence on one another
  - D) The origin of the material from which the gas-giant planets formed
- 2. Why does the professor discuss Earth's Moon?
  - A) To help students envision the sizes of planetesimals and asteroids
  - B) To introduce the concept of planetary formation
  - C) To suggest that the planetary-migration hypothesis deserves serious consideration
  - D) To provide evidence that the planets in our solar system are no longer changing orbits
- 3. According to the planetary-migration hypothesis, what was responsible for the orbital shifts of the gas giants?
  - A) Collisions between the gas giants and their moons
  - B) Changes in the mass of gas giants as they passed through areas of dust and gas
  - C) Gravitational interactions between Jupiter and the other gas giants
  - D) Gravitational interactions between the gas giants and small bodies of rock and ice
- 4. What difference between Jupiter and the other three gas giants does the professor emphasize?
  - A) Only Jupiter gained orbital energy.
  - B) Only Jupiter moved closer to the Sun.
  - C) Only Jupiter caused planetesimals to be ejected from the solar system.
  - D) Only Jupiter absorbed planetesimals into its core.
- 5. What did a computer simulation demonstrate?
  - A) Jupiter and Saturn are made of the same material of which asteroids are made.
  - B) The orbits of Jupiter and Saturn have shifted at least twice since the solar system formed.
  - C) A shift in the orbits of Jupiter and Saturn could help explain why the asteroid belt formed.
  - D) A shift in the orbits of Jupiter and Saturn could help explain why some areas of the asteroid belt are empty.
- 6. What point does the professor make when he discusses the existence of "hot Jupiters" in other solar systems? [choose two answers]
  - A) Hot Jupiters have small orbits.
  - B) Hot Jupiters in other solar systems may have formed in our solar system.
  - C) Gas giants cannot form close to their sun.
  - D) The planet Mercury has moved closer to the Sun.

### Listen to part of a lecture in a Music Appreciation class

【公众号"四箭齐发托福"】(*male professor*) For today, I asked you to read the introductory chapter about opera in the European tradition. So, who can tell us what opera is? Roger?

(male student) Well, except for being sung, it's a lot like theater; tells a story.

(professor) That's a very important point. Opera tells a story. And, yes, Jenny?

(female student) But how do you get the story if you can't understand what they're saying?

(professor) Ah, you mean because so many classic operas were written in other languages?

(female student) I can't even understand the ones in English. I just can't make out the words.

(*professor*) You know, you're not the first person to complain about this. In fact, there's a recent study that sheds some light on what you've experienced. You see there's a way of setting text to music so the words are easier to understand. According to the study, it has to do with **vowel pitch matching**.

Vowel pitch matching means pitches, musical notes, are assigned to vowels in words. Higher notes work better with certain kinds of vowels, lower notes with others. And the study examined whether or not four different composers took this into account when they wrote their operas. Did they write texts so their listeners could easily understand the sung words? The researchers looked at passages from the soprano parts in these composers' operas, sopranos sing the highest notes so vowel pitch matching would be most beneficial in these parts.

Uh, before we get to the results, we need to talk a bit about the physics of speech. How do human voice works? Now, any time you speak or sing, for that matter, you're basically expelling air. This air starts in your lungs and eventually passes out through your mouth or nose. But in between it passes through two important regions, the <u>vocal cords</u> and the <u>vocal tract</u>.

The vocal cords, two folds of muscle in your throat, vibrate creating a sound wave and this sound wave then passes through your vocal tract, which is the entire air passage lined between vocal cords and the mouth or nose. Now, as it passes through, it kind of bounces around inside the vocal tract, off of your tongue, you jaw, the roof of your mouth. And depending on how these are shaped at the time, that's gonna affect which vowel sound you hear. Some vowel sounds depend largely on how open your jaw is. An open jaw produces an "ah" sound, for instance, like in "father"; while a closed jaw produces for, say, the "oo" sound in "food."

Now, for singers, changing the shape of vocal tract also allows for greater volume of sound, essentially high notes sound louder with an open jaw and if a vowel requires a singer to sing a high note with a closed jaw, she'll usually adjust by opening her mouth a little bit more to increase the volume of the note. But that changes the characteristic vowel sound and makes it harder to

understand the word. That means a singer sacrifices meaning for the sake of volume.

(female student) So composers actually try to avoid this problem using vowel pitch matching?

(*professor*) Well, that's what the researchers wanted to know. They documented every vowel in those soprano passages and the pitch that was assigned to it. The question being, "How many times did each composer pair high notes with open-jawed vowels?" And statistically speaking, only one of them clearly used vowel pitch matching, **Richard Wagner**.

Wagner was a German composer who was active between the 1840s and the 1870s. He has a reputation as a composer of difficult music for singers especially sopranos singing in the highest ranges. So vowel pitch matching would make these parts somewhat easier to sing and understand.

(male student) But why didn't the other composers do it?

(*professor*) Well, for Wagner, the plot was extremely important. Wagner's singers are called upon to constantly advanced stories that are quite complex with long explanatory passages, while other composers wrote repetitive passages to rehash the plot. Also, Wagner's music calls for larger orchestras. So if the singer needs to be heard in the back row of the theater, she's really going to need consistently high volume.

Now, does this make Wagner a better composer than the rest? Well, his operas are different but all four composers in the study produced masterpieces of western music. I suppose it depends on what you're looking for, considering the different music styles and stories the operas present.

- 1. What does the professor mainly discuss?
  - A) A study about the difficulty of writing opera parts for sopranos
  - B) Evidence showing that many opera singers prefer to sing high notes
  - C) A technique for making opera singing easier to understand
  - D) Reasons why European operas were not often written in English
- 2. Why does the professor introduce a recent study?
  - A) To comment upon a complaint some people have about opera
  - B) To explain the similarities between theater and opera
  - C) To find out if the students completed their reading assignment
  - D) To point out that it examines the stories operas tell
- 3. Why does the professor discuss the vocal tract?
  - A) To show why different signers have different pitch ranges
  - B) To explain how distinctive vowel sounds are produced
  - C) To explain how speaking is different from singing
  - D) To demonstrate a technique singers use to produce beautiful sounds
- 4. Why are a soprano's words sometimes unclear when she sings?

- A) Singing high notes causes the vocal cords to tire.
- B) Many older concert halls were not designed to carry the sound of high notes.
- C) Sopranos do not always pronounce the endings of words.
- D) Sopranos open their jaws more than they should in forming certain words.
- 5. According to the professor, why might Wagner have been more likely to use vowel-pitch matching than other composers? [choose three answers]
  - A) His stories contain fewer repetitive passages.
  - B) His compositions are more varied in pitch.
  - C) His music is challenging to perform.
  - D) He composed more often for soprano voices.
  - E) He composed for larger orchestras.
- 6. What is the professor's opinion about the composers in the study?
  - A) Wagner was the best composer of the group.
  - B) Each of the composers had his own strengths.
  - C) The composers would all have benefited from using more complicated plots.
  - D) The composers were more interested in telling a story than in producing great music.

### Listen to a conversation between a student and a residence hall director

【公众号"四箭齐发托福"】(*man*) Hi, Tina, sorry I had to give you more hours in the office than you asked for, but, so many of the other resident assistants need time off to study for midterm exams.

(woman) No, that's fine. I don't mind. I've only got one midterm.

(man) Great! I'm glad to hear that.

(woman) I, uh, about that summer camp job I'm applying for, the one I told you about last week.

(man) Oh, right, that letter of recommendation, sorry, I haven't finished it yet.

(woman) No worries, the application deadline is not until next month. I was just wondering if you had everything you need.

(man) Yeah, I was gonna email you. I would like some more details about the camp and your motivation.

(woman) Sure, um, the summer camp's run by the education department and I'm an education major, so,

(man) It'll give you some good experience then.

(woman) Right

(man) I know the engineering department runs a summer program for high school students. My daughter participated last year, but I didn't realize there was a regular day camp here for younger kids.

(*woman*) Yeah, they come to campus Monday through Friday for different educational activities. And, hopefully, it'll get them thinking about enrolling here someday.

(man) I see. So, besides your work here as a resident assistant, I'll mention your major. Anything else you think I should include?

(woman) Um, do you know about the community garden near the library?

(*man*) Yeah, I just read about it in the campus newspaper actually. What's that got to do with? (*woman*) I helped to get it started and now I'm in charge of recruiting the volunteers. (*man*) Really?

(woman) Yeah, I've already signed up a lot of students like me who love gardening. Um, I grew tomatoes and other veges, you know, at home. We've got some agriculture and biology majors involved, too, and even some professors from those departments.

(man) Seems like a lot of work, though, coordinating so many people?

(woman) Yeah, in the beginning, it was a ton of work, finding a site, tilling and planting, and keeping everybody on schedule. But now that the plants are sprouting, I'm hoping it'll attract more people to keep it going. Anyway, since I helped organize that project, I think it could help my application if you wrote about that. I'd love the campers to spend a couple of hours a week there, you know, to learn about gardening.

(*man*) Great idea! You know with your experience helping students in the residence hall, and you involvement in the gardening project, it sounds like you'll be a top pick to work in that camp. (*woman*) I wish I had that much confidence. I know I'd be great at this, but tons of students are

applying to be camp counselors. (*man*) Well, good luck then

- 1. Why does the woman go to see the man?
  - A) To invite him to visit a new garden on campus
  - B) To let him know she cannot work for him over the summer
  - C) To discuss a letter she has asked him to write
  - D) To thank him for a letter of recommendation that he wrote
- 2. Why does the woman mention an application deadline?
  - A) To apologize for submitting her application late
  - B) To explain why she needs more time to study for an exam
  - C) To warn the man that the deadline has changed
  - D) To prevent the man from feeling rushed
- 3. Why does the man mention the campus newspaper?
  - A) To confirm that he is aware of the community garden
  - B) To explain how he learned about the summer camp
  - C) To let the woman know about another job opportunity
  - D) To praise the woman's skill at finding volunteers for the community garden
- 4. What information does the woman share with the man that he had not known? [choose two answers]
  - A) That she participated in a program run by the engineering department
  - B) That she worked as a resident assistant
  - C) That she helped start the community garden project
  - D) That the education department runs a summer day camp for young children
- 5. What attitude does the woman express about getting the job she is applying for?

- A) She is convinced that her lack of experience will hurt her chances.
- B) She is worried because there is a lot of competition for the job.
- C) She is not sure whether she can fit the job into her schedule.
- D) She is confident that she will get the job.

# Listen to part of a lecture in a Marketing class

【公众号"四箭齐发托福"】(female professor) Now, it's not uncommon to see a celebrity advertising a product, right? A popular basketball player endorsing shoes, a beautiful actress selling shampoo, marketers use the appeal of that person to sell their products. Another tactic is to use art in advertising. This is called **art infusion**.

The idea of art infusion is that when a piece of art is associated with a product, some of its, um, qualities or prestige spills over onto the product and actually changes how consumers evaluate it. We've long assumed this to be the case, but it was never studied systematically until recently when two university researchers designed some experiments to test the phenomenon. But before I describe those studies, let's talk about how we're defining art, because, of course, the question of what art really is has been debated by philosophers for centuries. But, this isn't a philosophy class. For our purposes, art is what the consumer says it is.

To define art for their experiments, the researchers conducted some screenings where they asked people to evaluate whether they considered an image to be art or not. In general, they found that people considered images representing what we might call expression for its own sake, work without any additional function, to be art. But, they were also more likely to rate an image as art if they thought creating it involved skill, if they couldn't do it, for example.

So, for their first experiment, the researchers first looked to see how the public would respond to paintings versus photos. So, they asked twenty people to rate two images with similar content side by side: one, a painting of an outdoor café by a famous artist Vincent Van Gogh and the other a photograph of an outdoor café And they found that the famous painting was much more likely to be viewed as art than the photograph.

So, then, each image, the painting and the photograph, was printed on the lid of a black velvet box so that the two boxes were identical except for the image. And then the researchers introduced the product, silverware. The researchers showed the set of silverware to customers at a restaurant. The silverware was the same each time but half the customers saw it presented in the box with the painting and the other half saw it in the box with the photograph. The image on the lid was visible before the box was opened.

Then, the customers were asked to give a general rating of the product. Did they like it or not, and also to rate it in terms of its perceived status or prestige. The results showed that the silverware was consistently rated higher on both counts when it was presented in the box with the painting. So, this first experiment supported the art infusion effect, something about that painting's status as art seem to positively affect the silverware's ratings.

But, what's especially helpful about this experiment is that it was conducted in a crowded restaurant not in a lab. So it basically reproduces the same level of distraction that consumers experience when evaluating actual products in the marketplace. That degree of realism says a lot about the accuracy of these results in my opinion.

OK, so, then the researchers wanted to find out if the content of a painting mattered or was it just enough that it was a work of art. So, they conducted a second experiment using three images: two famous paintings and one photograph. Pre-experiment screenings identified the paintings as art and the photograph as non-art. The screenings also identified the content of the paintings as either positive or negative. One painting had positive content, buildings overlooking a canal and one had negative content, burning buildings on the banks of a river. The photograph had similar content to the positive art image.

To replicate the first study, each of these three images was placed on an identical bottle of hand soap and each soap was then rated by participants. Well, as with the silverware, the product with a non-art image was the lowest rated. But more interesting is that the fact the soap with the negative content image, the painting with the fire, was rated just as high as the one with the positive canal scene. This suggests that the art infusion effect is content independent, that is, regardless of what the subject of that art actually is, product ratings are positively affected by association with an art image.

- 1. What is the main purpose of the lecture?
  - A) To examine the use of photographs in advertising
  - B) To examine the effect of using art images in product packaging
  - C) To explain why the use of art is not appropriate for all types of marketing
  - D) To compare the effect of using art images to that of using celebrity images in advertising
- 2. Why does the professor mention a philosophy class?
  - A) To emphasize the importance of considering differing opinions on the nature of art
  - B) To provide the context in which a research project took place
  - C) To explain why the results of a study are not applicable to a business class
  - D) To explain why she will not discuss definitions of art
- 3. According to the professor, what might influence consumers' decisions about whether an image is a work of art? [choose two answers]
  - A) Whether expression is its main purpose
  - B) How much skill was required to create it
  - C) Where the work is displayed
  - D) What type of scene is presented in the image
- 4. What is the professor's attitude toward the first experiment?
  - A) She is worried that the participants may have been too distracted to respond accurately.
  - B) She is not convinced that the same strategy would work in the marketplace.

- C) She thinks that using actual products would have added to the validity of the experiment.
- D) She thinks it is valuable because it was conducted in a real-world setting.
- 5. What aspect of the art infusion effect was the second experiment designed to explore?
  - A) Whether the art infusion effect is influenced by the content of the art used
  - B) Whether the art infusion effect is influenced by the type of product
  - C) How placement of an image influences consumers' attitudes toward a product
  - D) How to change consumers' attitudes toward a work of art
- 6. How do the results of the second experiment relate to the first experiment?
  - A) They call the results of the first experiment into question.
  - B) They suggest that the design of the first experiment was flawed.
  - C) They support the results of the first experiment.
  - D) They show that the art infusion effect is stronger for some products than for others.

# Listen to part of a lecture in an Environmental Science class

【公众号"四箭齐发托福"】(female professor) OK, at the end of class yesterday, I mentioned a kind of wasp, not what you would normally think of when you think wasp. These are tiny insects barely visible. They are known as **parasitoid wasps**.

Parasitoid wasps are very numerous and widespread. They can be found all over the world and they feed off of many different species of harmful insects that damage crops like moths, butterflies, flies. The wasps inject venom into the targeted insect to paralyze it and lay their eggs in the insect, which then serves as food for the young wasps when they emerge from the eggs.

Now, parasitoid wasps are very picky eaters. They are almost all host-specific. So an individual species of wasp prefers only one or two host insect species. And in addition to that, they are as diverse as the species they invade. Both facts make them ideal candidates for biological pest control, which is why I mentioned them. Biological pest control is an approach that uses living organisms like insects to control pests, particularly in agriculture. It's a much more environmentally friendly; it can be a preferable alternative to synthetic pesticides, which kill not only the targeted organism but many others as well.

Now, governments have been using parasitoid wasps for years. For example, cassava, a type of root vegetable, is a staple crop in Africa. It was imported there from South America by about 400 years ago. It's particularly reliable because it can grow where most other crops can't. But in the 1970s, the cassava mealy bug, a bug that eats cassava, was accidentally introduced. Within ten years, 80 percent of the cassava crop was lost. So researchers looked for and found a wasp that targeted the mealy bug and they introduced it into thirty African countries where it solved the mealy bug problem.

And stories like these are not unusual. In the late 1800s, the cabbage butterfly invaded North America, attacking kale and cabbage crops. After some unsuccessful introductions of different

wasp species over the years, in the 1980s a wasp from China was introduced and that did the trick.

(*male student*) Isn't that risky, though, introducing a non-native species? I thought, in general, that wasn't such a good idea, especially from an environmental perspective.

(*professor*) Yes, good point. You have to make sure that whatever wasp you introduce won't become a pest. But, in fact, these wasps are used to control invasive species. You just have to find the right wasp. And because of recent technological advancements many new species of these wasps have been identified in the past few years, about sixty thousand, and we believe that's just a start. Since many of the wasps looked practically identical, the number of species had previously been greatly underestimated.

(*male student*) That's an incredible figure. But are parasitoid wasps more diverse than beetles? I thought there were more species of beetles than any other insect.

(*professor*) Well, you're right in that more species of beetles have been identified than of any other insect. But it's looking like this new wasp research could change that. Now, what's also quite exciting for entomologists is their work with the genome, in other words, the genetic information, the entire set of genetic information of the parasitoid.

The genomes of three separate species of the parasitoid wasps have been a focus. And now those genomes have been correctly sequenced, the order of the genetic information has been identified. So this will serve as a kind of genetic resource. Researchers have already located the region of the genome that controls host preference. Once they're able to pin down the specific genes that determine what insect a given species of parasitoid wasps targets, it will give some insight into how the different parasitoid wasps varieties branched off, how speciation occurred.

Additionally, genetic information about the properties of the venom of the parasitoid wasps might be useful in the development of new drugs. The wasp venom studied contained 79 proteins and turns out that 23 of those are completely new to scientists.

(female student) It's interesting that considering how important these wasps seem in a lab and out of it, I mean, how come we never hear about them?

(professor) Well, it's not really all that surprising. In the past, they've been, well, understudied, to say the least, and not many people knew about their importance.

- 1. What is the lecture mainly about?
  - A) The discovery of a new type of parasitoid wasp
  - B) How the parasitoid wasp population spreads to new regions
  - C) An environmental threat caused by an invasive species of parasitoid wasp
  - D) The use of parasitoid wasps to protect crops
- 2. What point does the professor stress about the selection of hosts by parasitoid wasps?

- A) Parasitoid wasps lay their eggs almost exclusively on cassava plant species
- B) Individual parasitoid wasp species usually target only one or two host species
- C) Parasitoid wasp species often share the same hosts as certain species of beetles.
- D) Parasitoid wasps are likely to become invasive because they adapt readily to new hosts
- 3. What does the professor imply when she talks about parasitoid wasps and the cabbage butterfly?
  - A) Matching a parasitoid wasp species and its host can be difficult.
  - B) Biological pest control can be effective in reducing parasitoid wasp populations.
  - C) Genetic research on parasitoid wasps has revealed surprising similarities with other insects.
  - D) Parasitoid wasps and cabbage butterflies both probably invaded Africa at around the same time.
- 4. Why does a student mention nonnative species?
  - A) To suggest a way to control insect pests
  - B) To compare the agricultural impact of two insect species
  - C) To explain why parasitoid wasps are numerous outside their native environment
  - D) To raise a point about the harm invasive species can do
- 5. What do scientists hope to learn as a result of studying the genomes of parasitoid wasps? [choose two answers]
  - A) Whether knowledge about parasitoid wasp venom could be applied to the field of medicine
  - B) Why parasitoid wasps create more proteins than other insect species
  - C) What caused the parasitoid wasp to diverge into different species
  - D) Why only some parasitoid wasps produce venom
- 6. What does the professor imply when she says this:
  - A) Research on beetles is not considered as important as it once was.
  - B) More research should be conducted to identify beetle species.
  - C) It is easier to distinguish between wasp species than it is to distinguish between beetle species
  - D) There may be more species of parasitoid wasps than there are species of beetles.