

TPO 32

READING

Paragraph 1

1. According to paragraph 1, how does disturbance of a site influence its colonization by a plant species?
 - A) Disturbance reduces or eliminates competition by other species.
 - B) Disturbance increases negative interactions with other organisms on the site.
 - C) Disturbance prevents a plant species from colonizing a new site.
 - D) Disturbance reduces the fertility of a site.

2. The word “virtually” in the passage is closest in meaning to
 - A) almost totally
 - B) unusually
 - C) consistently
 - D) unnaturally

3. Why does the author mention a plowed field and a construction site in the passage?
 - A) To argue that sites that have been affected by human activity tend to be colonized slowly
 - B) To illustrate the kind of sites that may be invaded by weeds
 - C) To contrast sites in terms of their suitability for colonization
 - D) To explain that exposing or compacting the soil results in successful colonization

Plant Colonization

Colonization is one way in which plants can change the ecology of a site. Colonization is a process with two components: invasion and survival. The rate at which a site is colonized by plants depends on both the rate at which individual organisms (seeds, spores, immature or mature individuals) arrive at the site and their success at becoming established and surviving. Success in colonization depends to a great extent on there being a site available for colonization – a safe site where disturbance by fire or by cutting down of trees has either removed competing species or reduced levels of competition and other negative interactions to a level at which the invading species can become established. For a given rate of invasion, colonization of a moist, fertile site is likely to be much more rapid than that of a dry, infertile site because of poor survival on the latter. A fertile, ~~old~~ plowed field is rapidly invaded by a large variety of weeds, whereas a neighboring ~~construction site~~ from which the soil has been compacted or removed to expose a coarse, infertile parent material may remain virtually free of vegetation for many months or even years ~~despite~~ receiving the same input of seeds as the plowed field.

4. The word “despite” in the passage is closest in meaning to

- A) without
- B) almost never
- C) even though
- D) perhaps

Paragraph 2

5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

- A) The seeds of pioneer species are usually carried by the wind to fertile sites, where they reproduce very efficiently.
- B) Pioneer species are successful invaders because they produce lots of seeds that are dispersed effectively.
- C) Pioneer species produce their largest numbers of propagules during the earliest stages of their colonization.
- D) Pioneer species reproduce very quickly and efficiently because they produce very large number of seeds.

Paragraph 3

6. What can be inferred from paragraph 3 about the reason that large seeds are dispersed by birds or small animals rather than by wind?

- A) Large seeds are easier for birds and animals to see than are the small seeds dispersed by the wind.
- B) Large seeds are too heavy for the wind to disperse.
- C) Large seeds cannot be eaten by birds and animals.
- D) Large seeds are short-lived and thus

Both the rate of invasion and the rate of extinction vary greatly among different plant species. Pioneer species – those that occur only in the earliest stages of colonization – tend to have high rates of invasion because they produce very large numbers of reproductive propagules (seeds, spores, and so on) and because they have an efficient means of dispersal (normally, wind)

If colonizers produce short-lived reproductive propagules, then they must produce very large numbers unless they have an efficient means of dispersal to suitable new habitats. Many plants depend on wind for dispersal and produce abundant quantities of small, relatively short-lived seeds to compensate for the fact that wind is not always a reliable means of reaching the appropriate type of habitat. Alternative strategies have evolved in some plants, such as those

require a more efficient means of dispersal than small seeds do.

7. The phrase “the latter adaptation” in the passage refers to

- A) producing fewer seeds
- B) producing larger seeds
- C) dispersal by birds and small mammals
- D) producing long-lived seeds

8. The word “viable” in the passage is closest in meaning to

- A) able to survive
- B) individual
- C) large
- D) remaining

9. The example of the 100-year-old Douglas fir/western hemlock forest in paragraph to illustrates which of the following ideas?

- A) It is uncommon for older seed to germinate.
- B) Pioneer species tend to prefer forest floors for colonization purposes.
- C) Long-lived seeds of pioneer species can successfully germinate over long periods of time.
- D) Coastal British Columbia is particularly suited for pioneer species to develop.

Paragraph 4

10. According to paragraph 4, how do plants manage to germinate in areas with great climatic diversity and climatic extremes?

- A) By producing seeds only during favorable climatic conditions
- B) By generating large numbers of seeds

that produce fewer but larger seeds that are dispersed to suitable sites by birds or small mammals or those that produce long-lived seeds. Many forest plants seem to exhibit the latter adaptation, and viable seeds of pioneer species can be found in large numbers on some forest floors. For example, as many as 1,125 viable seeds per square meter were found in a 100-year-old Douglas fir/western hemlock forest in coastal British Columbia. Nearly all the seeds that had germinated from this seed bank were from pioneer species. The rapid colonization of such sites after disturbance is undoubtedly in part a reflection of the large seed bank on the forest floor.

An adaptation that is well developed in colonizing species is a high degree of variation in germination (the beginning of a seed’s growth). Seeds of a given species exhibit a wide range of germination dates, increasing the probability that at least some of the seeds will germinate during a period of

- C) By colonizing only those areas where other plants have survived
- D) By producing seeds that have a wide range of germination dates

favorable environmental conditions. This is particularly important for species that colonize an environment where there is no existing vegetation to ameliorate climatic extremes and in which there maybe great climatic diversity.

Paragraph 5

- 11. The word “abundant” in the passage is closest in meaning to
 - A) new
 - B) improved
 - C) suitable
 - D) plentiful
- 12. According to paragraph 5, which of the following determines the sequence in which plant species will colonize a site?
 - A) The extent of growth of a species on a prior site before it begins to colonize a secondary site
 - B) The differences in invasion and growth rates across species
 - C) The degree of fertility of a site
 - D) The kind of disturbance that the site has undergone
- 13. Look at the four squares [] that indicate where the following sentence could be added to the passage.
They require relatively little protection or nutrients.
Where does the sentence best fit?

14. Prose Summary

The ecology of a site is changed through its colonization by new plants that arrive and grow there.

Answer Choices:

Species succession in plant communities, i.e., the temporal sequence of appearance and disappearance of species is dependent on events occurring at different stages in the life history of a species. Variation in rates of invasion and growth plays an important role in determining patterns of succession, especially secondary succession. The species that are first to colonize a site are those that produce abundant seed that is distributed successfully to new sites. Such species generally grow rapidly and quickly dominate new sites, excluding other species with lower invasion and growth rates. The first community that occupies a disturbed area therefore may be composed of species with the highest rate of invasion, whereas the community of the subsequent stage may consist of plants with similar survival rates but lower invasion rates.

- A) The species that first colonize a disturbed site are typically ones that produce a large number of efficiently dispersed seeds.
- B) Plants that cannot successfully compete with other species can invade and colonize a site only if it is fertile and moist, such as a plowed field.
- C) Pioneer species arrive at a site first but have lower survival rates than do species that arrive later.
- D) Producing seeds that germinate at various times over long periods allows some plants to colonize sites that only occasionally present the right conditions for growth.
- E) Large, long-lived seeds tend to result in large seed banks with short germination periods requiring favorable environmental conditions for development.
- F) The successive appearance and disappearance of species on a site is a result of variation in species' rates of invasion, growth, and survival.

Paragraph 1

1. The word “severed” in the passage is closest in meaning to
- A) cut off
B) viewed
C) protected
D) rescued
2. According to paragraph 1, the situation for Siam’s old ruling families changed in all of the following ways EXCEPT:

Siam, 1851 – 1910

In the late nineteenth century, political and social changes were occurring rapidly in Siam (now Thailand). The old ruling families were being displaced by an evolving centralized government. These families were pensioned off (given a sum of money to live on) or simply had their revenues taken away or restricted; their sons were enticed away to schools for district officers, later to be posted in

- A) Their incomes were reduced.
- B) Their sons were posted as district officers in distant provinces.
- C) They could sell lands that had traditionally belonged to them.
- D) They had less control over the rural populations.

some faraway province; and the old patron-client relations that had bound together local societies simply disintegrated. Local rulers could no longer protect their relatives and attendants in legal cases, and with the ending in 1905 of the practice of forcing peasant farmers to work part-time for local rulers, the rulers no longer had a regular base for relations with rural populations. The old local ruling families, then, were severed from their traditional social context.

Paragraph 2

3. According to paragraph 2, which of the following was true of Siam in 1905?
- A) Its urban population began to migrate out of the cities and into the country.
 - B) Its Central Plain was almost as densely populated as it is today.
 - C) It was so rural that wild elephants and tigers sometimes roamed Bangkok.
 - D) It had many more villages than it did in the late 1800s.

The same situation viewed from the perspective of the rural population is even more complex. According to the government's first census of the rural population, taken in 1905, there were about thirty thousand villages in Siam. This was probably a large increase over the figure even two or three decades earlier, during the late 1800s. It is difficult to imagine it now, but Siam's Central Plain in the late 1800s was nowhere near as densely settled as it is today. There were still forests closely surrounding Bangkok into the last half of the nineteenth century, and even at century's end there were wild elephants and tigers roaming the countryside only twenty or thirty miles away.

Paragraph 3

4. The phrase "rice-deficient portions" in the passage is closest in meaning to
- A) the parts that consume rice
 - B) the parts that do not have enough rice
 - C) the parts where rice is grown
 - D) the parts that depend primarily on rice

Much population movement involved the opening up of new lands for rice cultivation. Two things made this possible and encouraged it to happen. First, the opening of the kingdom to the full force of international trade by the Bowring Treaty (1855) rapidly

5. Paragraph 3 mentions all of the following as signs of economic growth in Siam EXCEPT
- A) an increase in the price of rice
 - B) an increase in the amount of rice leaving Siam
 - C) an increase in the nutritional quality of the rice grown
 - D) an increase in the amount of land used for rice production

6. According to paragraph 3, farming families increased the amount of rice they grew in part by
- A) growing varieties of rice that produced greater yields
 - B) forming collective farms by joining together with other farm families
 - C) planting rice in areas that had previously remained unplanted
 - D) hiring laborers to help them tend their fields

Paragraph 4

7. According to paragraph 4, what happened after the government ended the practice of requiring rural people to perform labor for it?
- A) Rural people became more closely connected to the aristocracy.
 - B) Rural people spent more time growing rice for profit.
 - C) The government began to pay the laborers who grew rice for it.
 - D) The government introduced a special tax on rice.

8. Which of the following best describes the relationship between paragraphs 3 and 4 in the passage?
- A) Paragraph 4 provides further evidence of the economic growth of Siam discussed in paragraph 3.

encouraged economic specialization in the growing of rice, mainly to feed the rice-deficient portions of Asia (India and China in particular). The average annual volume of rice exported from Siam grew from under 60 million kilograms per year in the late 1850s to more than 660 million kilograms per year at the turn of the century; and over the same period the average price per kilogram doubled. During the same period, the area planted in rice increased from about 230,000 acres to more than 350,000 acres. This growth was achieved as the result of the collective decisions of thousands of peasants families to expand the amount of land they cultivated, clear and plant new land, or adopt more intensive methods of agriculture.

They were able to do so because of our second consideration. They were relatively freer than they had been half a century earlier. Over the course of the Fifth Reign (1868 – 1910), the ties that bound rural people to the aristocracy and local ruling elites were greatly reduced. Peasants now paid a tax on individuals instead of being required to render labor service to the government. Under these conditions, it made good sense to thousands of peasant families to in effect work full-time at what they had been able to do only part-time previously because of the requirement to work for the government: grow rice for the marketplace.

- B) Paragraph 4 continues the discussion begun in paragraph 3 of farming improvements that led to economic growth.
- C) Paragraph 4 examines a particular effect of the Bowring Treaty mentioned in paragraph 3.
- D) Paragraph 4 discusses the second of two factors that contributed to the expansion of rice farming mentioned in paragraph 3.

Paragraph 5

9. The word “dispersed” in the passage is closest in meaning to
- A) spread out
B) gained power
C) adapted
D) specialized
10. The word “compulsory” in the passage is closest in meaning to
- A) foreign
B) formal
C) required
D) preferred
11. According to paragraph 5, which of the following was true of Siam’s rural people during the Fifth Reign?
- A) They were forced to spend most of the profits from rice growing on registrations required by the government.
- B) Their lives remained very difficult even though statistics suggest that their quality of life improved.
- C) The non-farmers among them were helped by the government more than the farmers among them were.
- D) They were more prosperous when they were ruled by local elites than when they were ruled by the more modern government of the Fifth Reign.

Numerous changes accompanied these developments. The rural population both dispersed and grew, and was probably less homogeneous and more mobile than it had been a generation earlier. The villages became more vulnerable to arbitrary treatment by government bureaucrats as local elites now had less control over them. By the early twentieth century, as government modernization in a sense caught up with what had been happening in the countryside since the 1870s, the government bureaucracy intruded more and more into village life. Provincial police began to appear, along with district officers and cattle registration and land deeds and registration for compulsory military service. Village handicrafts diminished or died out completely as people bought imported consumer goods, like cloth and tools, instead of making them themselves. More economic variation took shape in rural villages, as some grew prosperous from farming while others did not. As well as can be measured, rural standards of living improved in the Fifth Reign. But the statistical averages mean little when measured against the harsh realities of peasant life.

12. According to paragraph 5, the government bureaucracy intruded in village life by

- A) requiring the people to register their cattle and land
- B) requiring the people to buy certain kinds of imported goods
- C) discouraging the people from making handicrafts and tools
- D) encouraging more people to take up farming

13 . Look at the four squares [] that indicate where the following sentence could be added to the passage.

And yet, how is it that the peasants were able to choose to expand their economic activity in response to the market opportunities?

Where does the sentence best fit?

14. Prose Summary

During the late nineteenth century, changes in Siam's power structure had important economic consequences.

Answer Choices:

- A) Population movement occurred and rice cultivation intensified because Siam became more actively involved in international trade.
- B) Changes in taxation and the ending of the requirement that people work part-time for the rulers allowed farmers to produce more rice for the marketplace.
- C) Population increases occurred in part because Siam's farmers were able to produce more rice to feed the population.
- D) Land became so valuable that villagers had to pay the government for the land that they worked on.
- E) Although rural living standards may have improved somewhat, prosperity varied from

village to village and government bureaucracy played a greater role in village life.

F) Government modernization in the early twentieth century resulted in the loss of some freedoms that the rural population had gained from the traditional ruling classes.

~~~~~

~~~~~

LISTENING

1. What is the conversation mainly about?

- A) Reasons that the man wants to sell his textbook
- B) How to find out which books are on the buyback list
- C) The bookstore's policies for buying back textbooks from students
- D) The student's deadline for selling old textbooks

2. According to the woman, when are textbooks added to the buyback list?

- A) After students have registered for the next semester's classes
- B) After professors receive student evaluations of textbooks
- C) After professors inform the bookstore what textbooks they will use the following semester
- D) After the bookstore determines what price to charge

3. According to the woman, what is a reason the man's textbook may not be added to the buyback list?

- A) The bookstore may already have ordered too many copies of the textbook.
- B) The price of the textbook may have changed significantly since last semester.
- C) Professor Murphy may not be teaching economics next semester.
- D) A newer edition of the textbook may be available next semester.

4. What does the woman suggest the man should do to have the best chance of selling his book to the bookstore? [choose two answers]

- A) Ask his professor if the same book will be used next semester
- B) Sell the book back as soon as the buyback period begins
- C) Make sure the book is in good condition
- D) Bring the original sales receipt with the book

5. Why does the woman say this:

- A) To confirm that cleaning up the book is important
- B) To suggest it might be easier to sell the book to another student
- C) To indicate that she sets the price the bookstore will pay for books
- D) To acknowledge that the man's book is in good shape

6. What is the lecture mainly about?

- A) The history of archaeology in Africa
- B) Traditional methods of archaeological research
- C) Controversial new archaeological findings
- D) The study of archaeology in Southeast Asia

7. What excites the professor about the field of archaeology?

- A) Established theories can be challenged by new evidence.
- B) The technology used in archaeology is always improving.
- C) Archaeology deals with basic issues of human societies.
- D) Archaeologists often work in interesting parts of the world.

8. According to the professor, what can scientists learn by examining ancient phytoliths?

- A) The nutrients a plant took in
- B) The age of a certain sediment layer
- C) What a plant was used for
- D) What type of plant produced them

9. What are the implications of the theory that bananas arrived in Africa 5,000 years ago? [choose two answers]

- A) Agriculture developed in Africa earlier than previously assumed.
- B) Contact between Africa and Asia occurred earlier than previously assumed.
- C) People have inhabited Southeast Asia longer than previously assumed.
- D) The banana plant is a more ancient plant than was previously assumed.

10. What does the professor consider a weakness of the study on bananas in Africa?

- A) It did not produce accurate data.
- B) Its results are of little importance.
- C) Its conclusions are not supported by other studies.
- D) It does not make good use of advanced technology.

11. Why does the professor say this:

- A) To announce her intentions to continue the study herself
- B) To encourage her students to do archaeological research

- C) To discredit the recent research on bananas and phytoliths
- D) To highlight the university's reputation in archaeology

12. What is the lecture mainly about?

- A) Ways species in an ecosystem affect each other's population size
- B) How the carrying capacity of an ecosystem is determined
- C) A new theory regarding cycles in predator and prey population sizes
- D) How researchers monitor the population size of animal species in the wild

13. Why does the professor mention nonnative species?

- A) To show that some species cannot be transplanted easily to new environments
- B) To give an example of rapid population growth that is not followed by decline
- C) To emphasize that species with rapidly growing populations harm ecosystem
- D) To introduce a study on the changing population size of certain species

14. What point does the professor make when she discusses the carrying capacity of an ecosystem?

- A) The availability of food is more important for species than the availability of space.
- B) The amount of environmental resistance in an ecosystem does not change over time.
- C) Environmental resistance controls the population size of species in an ecosystem.
- D) The population size of most species increases at a constant rate.

15. How did the researchers test the links between acorns, white-footed mice, and gypsy moths in a forest?

- A) They supplied an additional food source for gypsy moths.
- B) They introduced gypsy moths to areas where there had been none.
- C) They cleared oak trees from some areas where both animal species lived.
- D) They manipulated the numbers of mice and acorns in some areas.

16. What does the professor say can lead to a change in the gypsy moth population in a forest?

[choose two answers]

- A) An increase in the number of tree species in a forest
- B) An increase in the number of acorns produced by oak trees
- C) A decrease in the population of white-footed mice
- D) A decrease in oak tree leaves caused by gypsy moth caterpillars

17. What can be inferred about the professor when she says this:

- A) She does not know the answer to the student's question.
- B) She wants to correct a statement she made earlier.
- C) She thinks the term the student used is incorrect.
- D) She would like to redirect the discussion

18. What do the speakers mainly discuss? [choose two answers]

- A) How the man should narrow the focus of his paper
- B) Whether a focus on wood harvesting is an appropriate topic for the man's paper
- C) Why the man became interested in wood harvesting techniques
- D) Why different ancient cultures used different wood harvesting techniques

19. Why does the man mention pursuing an advanced degree in forestry?

- A) To explain why his biology class interests him so much
- B) To ask the professor to write a letter of recommendation for him
- C) To get the professor's opinion on his choice of careers
- D) To indicate he is not interested in anthropology

20. What had the man assumed about human impact on the environment?

- A) That human impact on the environment is difficult to measure
- B) That humans have only recently had an impact on the environment
- C) That human impact on the environment is always harmful
- D) That human impact on the environment cannot be avoided

21. According to the professor, what did researchers find at an archaeological site in Turkey?

- A) Remains of pistachios and almonds in ancient vessels
- B) Tools indicating that there was farming in the region
- C) Evidence that people cut down trees for use as fuel
- D) Evidence that people harvested branches from trees

22. What opinion does the professor express when she says this:

- A) That the topic is too controversial to be the focus of the man's paper

- B) That too many papers have already been written on the topic
- C) That the topic does not seem to meet the requirements of the assignment
- D) That there has not yet been any research published on the topic

23. What is the lecture mainly about?

- A) The environmental effects of heap roasting
- B) The reforestation efforts in the Copper Basin
- C) The process of mining and producing copper
- D) Damages caused during an attempt to clean up industrial waste

24. What is the professor's opinion about the effort to reclaim the land in the Copper Basin?

- A) The techniques and materials used for the cleanup were probably outdated.
- B) Some attempts to clean up the Copper Basin have made the problems worse.
- C) It is not surprising that cleaning up the area has been extremely difficult.
- D) The cleanup has taken longer than necessary.

25. What does the professor imply when he mentions an Olympic whitewater kayaking competition?

- A) That many people are unaware of the environmental problems in the Copper Basin
- B) That a successful reclamation of the Copper Basin may be possible
- C) That some activities in the Copper Basin must go on despite the pollution
- D) That the Olympic competition should have been held in a different location

26. According to the lecture, why was heap roasting used in the producing of copper?

- A) To make copper ore easier to transport
- B) To make copper ore safe for workers to handle
- C) To transform copper ore into fuel
- D) To remove impurities from copper ore

27. What factors led to the disappearance of trees in the Copper Basin? [choose two answers]

- A) Mines were dug under areas where trees were growing.
- B) Loose soil led to trees being washed into the rivers.
- C) Trees growing near the mines were cut and used as fuel.
- D) Clouds of sulfur smoke killed trees in the area.

28. What resulted from the lack of trees near the copper-mining operation?

- A) It became difficult to provide housing for all the workers.
- B) Rivers became filled with toxic soil.
- C) Coal and other fuel had to be transported into the area.
- D) The heap-roasting process had to be completed far from the mines.

29. What are the speakers mainly discussing?

- A) An architect from the United States and a house design she created
- B) The disadvantage of houses based on a square design
- C) Difficulties faced by residential architects in the nineteenth century
- D) Women who had a major influence on architecture in the United States

30. Why does the professor quote from the journal The American Architect and Building News?

- A) To point out a source of biographical information about Harriet Morrison Irwin
- B) To emphasize his point that there were few southern U.S. architects in then in the nineteenth century
- C) To support his assertion that nineteenth-century residential architects did not get enough respect
- D) To point out that interest in southern U.S. architecture increased during the nineteenth century

31. What does the professor say about Irwin's education in architecture?

- A) She acquired knowledge through independent study.
- B) She studied with an architect who helped her patent her design.
- C) She was trained in architecture starting at a young age.
- D) She was the first woman in the United States to attend architecture school.

32. What feature of Irwin's design shows the influence of John Ruskin?

- A) The size of the rooms
- B) The length and shape of the hallways
- C) The main entrance of the house
- D) The placement of windows and doors

33. According to the professor, what interior features of the house Irwin designed were especially beneficial? [choose two answers]

- A) Circular rooms with windows in the ceiling

- B) Floors that were easy to clean
- C) A large, spacious common area
- D) A single-fireplace system that heated the entire house

34. What does the professor imply about Irwin's nineteenth-century biographers?

- A) They were probably envious of her success.
- B) They did not sufficiently value function in residential architecture.
- C) They did not know much about architects from the southern United States.
- D) They understood the difficulties faced by women architects.

SPEAKING

1. Students often like to study with others in a group.

What do you think are the benefits of group study?

- Give at least one benefit.
- Explain your reasons.

2. Do you agree or disagree with the following statement?

Children should receive money for doing household tasks such as cleaning.

Use specific examples and details to support your opinion.

3. Read a student letter in the campus newspaper. You will have 50 seconds to read the letter. Begin reading now.

[OBJ-OBJ-OBJ]

An Airport Bus for School Breaks

Students who fly home for the winter and spring breaks need to get to and from the airport, which is a half-hour drive from campus. I think the university should run a free bus service for students between campus and the airport during the breaks. This would help the students, since there is no public transportation between campus and the airport. In order to provide service to the airport, some of the buses that normally run between campus buildings when classes are in session could run between the school and the airport during the school breaks.

Sincerely,

Laura Johnson

[OBJ]

[OBJ-OBJ]Now listen to two students discussing the letter.

The man expresses his opinion about the proposal described in the letter. Briefly summarize the proposal then state his opinion about the proposal and explain the reasons he gives for holding that opinion.

4. Read a passage about the choice-supportive bias from a Psychology textbook. You will have 45 seconds to read the passage. Begin reading now.

Choice-Supportive Bias

People often make decisions by considering the advantages and disadvantages of each option. However, after a person selects an option, there is a tendency for that person to exhibit the choice-supportive bias. After selecting an option, a person may begin to favor that option. Without being

fully aware of it, people who exhibit this bias tend to focus on and remember only the advantages of the option they selected. As time passes, they will overlook the option's disadvantages, eventually even forgetting them.

Now listen to part of a lecture on this topic in a Psychology class.

Explain how the example from the professor's lecture illustrates the choice-supportive bias.

5. Listen to a conversation between two students.

Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

6. Listen to part of a lecture in an Environmental Science class.

Using the examples of the star thistle and the Kit fox, describe two ways roads can affect the environment.

WRITING

TASK 1

Starting in the 1960s and continuing until the 1980s, sailors in Russian submarines patrolling the North Atlantic and Arctic Ocean would occasionally hear strange sounds. These underwater noises reminded the submarine crews of frog croaks, so they called the sounds “quackers” (from the Russian word for frog sounds). The sources of the sound seemed to be moving with great speed and agility; however, the submarines’ sonar (a method of detecting objects underwater) was unable to detect any solid moving objects in the area. There are several theories about what might have caused the odd sounds.

The first theory suggests that the strange noises were actually the calls of male and female orca whales during a courtship ritual. Orca whales are known to inhabit the areas where the submarines were picking up the bizarre noises. Orcas have been studied extensively, and the sounds they make when trying to attract a mate are similar to those that the submarines were detecting.

A second idea is that the sounds were caused by giant squid. Giant squids are giant marine invertebrates that live deep in the ocean and prey on large fish. They are difficult to detect by sonar because they have soft bodies with no skeleton. Not much is known about giant squid behavior, but their complex brains suggest they are intelligent animals. It is possible they have the ability to emit sound, and perhaps they approached the submarines out of curiosity.

A third theory suggests the Russian submarines were picking up stray sounds from some military technology, like another country’s submarines that were secretly patrolling the area. Perhaps the foreign submarines did not register on sonar because they were using a kind of technology specifically designed to make them undetectable by sonar. The strange froglike sounds may have been emitted by the foreign submarines unintentionally.

Summarize the points made in the lecture, being sure to explain how they challenge the specific theories presented in the reading passage.

TASK 2

Do you agree or disagree with the following statement?

Young people today have no influence on the important decisions that determine the future of society as a whole.

Use specific reasons and examples to support your answer.

