

MINI TEST 1

Social parasitism involves one species relying on another to **raise** its young. Among vertebrates, the best-known social parasites are such birds as **cuckoos and cowbirds**; the female lays an egg in a nest belonging to another species and leaves **it** for the host to rear.

The dulotic species of ants, however, are the supreme social parasites. Consider, for example, the unusual behavior of ants belonging to the genus *Polyergus*. All species of this ant have lost the ability to care for themselves. The workers do not forage for food, feed their brood or queen, or even clean their own nest. To compensate for these deficits, *Polyergus* has become specialized at obtaining workers from the related genus *Formica* to do these chores.

In a raid, several thousand *Polyergus* workers will travel up to 500 feet in search of a *Formica* nest, penetrate it, drive off the queen and tier workers, capture the pupal brood, and transport it back to their nest. The captured brood is then reared by the resident *Formica* workers until the developing pupae emerge to add to the *Formica* population, which maintains the mixed-species nest. The *Formica* workers forage for food and give it to colony members of both species. They also remove wastes and **excavate** new chambers as the population increases.

The true extent of the *Polyergus* ants' dependence on the *Formica* becomes apparent when the worker population grows too large for the existing nest. *Formica* scouts locate a new nesting site, return to the mixed-species colony, and **recruit** additional *Formica* nest mates. During a period that may last seven days, the *Formica* workers carry to the new nest all the *Polyergus* eggs, larvae, and pupae, every *Polyergus* adult, and even the *Polyergus* queen.

Of the approximately 8,000 species of ants in the world, all 5 species of *Polyergus* and some 200 species in other genera have evolved some degree of parasitic relationship with other ants.

Question 21: Which of the following statements best represents the main idea of the passage?

- A. Ants belonging to the genus *Formica* are incapable of performing certain tasks.
- B. The genus *Polyergus* is quite similar to the genus *Formica*.
- C. Ants belonging to the genus *Polyergus* have an unusual relationship with ants belonging to the genus *Formica*.
- D. *Polyergus* ants frequently leave their nests to build new colonies.

Question 22: The word "raise" in paragraph 1 is closest in meaning to _____.

- A. rear
- B. lift
- C. collect
- D. increase

Question 23: The author mentions “cuckoos and cowbirds” in paragraph 1 because they ____.

- A. share their nests with each other
- B. are closely related species
- C. raise the young of other birds
- D. are social parasites

Question 24: The word "it" in paragraph 1 refers to ____.

- A. species
- B. nest
- C. egg
- D. female

Question 25: What does the author mean by stating that "The dulotic species of ants ... are the supreme social parasites" (paragraph 2)?

- A. The Polyergus are more highly developed than the Formica.
- B. The Formica have developed specialized roles.
- C. The Polyergus are heavily dependent on the Formica.
- D. The Formica do not reproduce rapidly enough to care for themselves

Question 26: Which of the following is a task that an ant of the genus Polyergus might do?

- A. Look for food.
- B. Raid another nest
- C. Care for the young.
- D. Clean its own nest.

Question 27: The word "excavate" in paragraph 3 is closest in meaning to ____.

- A. find
- B. clean
- C. repair
- D. dig

Question 28: The word "recruit" in paragraph 4 is closest in meaning ____.

- A. create
- B. enlist
- C. endure
- D. capture

Question 29: What happens when a mixed colony of Polyergus and Formica ants becomes too large?

- A. The Polyergus workers enlarge the existing nest.
- B. The captured Formica workers return to their original nest.
- C. The Polyergus and the Formica build separate nests.
- D. The Polyergus and the Formica move to a new nest.

Question 30: According to the information in the passage, all of the following terms refer to ants belonging to the genus *Formica* EXCEPT the _____.

- A. dulotic species of ants
- B. captured brood
- C. developing pupae
- D. worker population

MINI TEST 2

During the **heyday** of the railroads, when America's rail system provided the bulk of the country's passenger and freight transportation, various types of railroad cars were in service to accomplish the varied tasks handled by the railroads. One type of car that was not available for public use prior to the Civil War, however, was a sleeping car; ideas for sleeping cars abounded at the time, but these ideas were unworkable. It unfortunately took the death of a president to make the sleeping car a viable reality.

Cabinet-maker George M. Pullman had recognized the demand for sleeping cars and had worked on developing experimental models of sleeping cars in the decade leading up to the Civil War. However, in spite of the fact that he had made successful test runs on the Chicago and Alton Railroads with his models, he was unable to sell his idea because his models were too wide and too high for existing train station and bridges. In 1863, after spending time working as a storekeeper in a Colorado mining town, he invested his savings of twenty thousand dollars, a huge fortune at that time and all the money that he had in the world, in a luxurious sleeping car that he named the Pioneer. Pullman and friend Ben Field built the Pioneer on the site of the present-day Chicago Union Station. For two years, however; the Pioneer sat on a railroad siding, useless because it could not fit through train stations and over bridges.

Following President Lincoln's assassination in 1865, the state of Illinois, Lincoln's birthplace, wanted to transport the presidential casket in the finest fashion possible. The Pullman Pioneer was the most elegant car around; in order to make the Pullman part of the presidential funeral train in its run from Springfield to Chicago, the state cut down station platforms and raised bridges in order to accommodate the luxurious railway car. The Pullman car greatly impressed the funeral party, which included Lincoln's successor as president, General Ulysses S. Grant, and Grant later requested the Pioneer for a trip from Detroit to Chicago. To satisfy Grant's request for the Pioneer, the Michigan Central Railroad made improvements on its line to accommodate the wide car, and soon other railroads followed. George Pullman founded the Pullman Palace Car Company in partnership with financier Andrew Carnegie and eventually became a millionaire.

Pullman cars were normally a dark "Pullman green", although some were painted in the host railroad's colors. The cars carried individual names, but usually did not carry visible numbers. In the 1920s, the Pullman Company went through a series of restructuring steps, which in the end resulted in a parent company, Pullman Incorporated, controlling the Pullman Company (which owned and operated sleeping cars) and the Pullman - Standard Car Manufacturing Company.

Question 21: Which of the following best states the main idea of the passage?

- A. America's railroads used to provide much of the country's transportation.
- B. President Lincoln's assassination in 1865 shocked the nation.
- C. George Pullman was the only one to come up with the idea for a sleeping car.
- D. Pullman's idea for a sleeping car became workable after Lincoln's death.

Question 22: A "heyday" in paragraph 1 is most probably a ____.

- A. time for harvest.
- B. a period with low prices.
- C. a period of great success.
- D. a type of railroad schedule.

Question 23: It can be inferred from the passage that before the Civil War, sleeping cars ____.

- A. were used abundantly.
- B. were thought to be a good idea.
- C. were only used privately.
- D. were used by presidents.

Question 24: What is the main idea of paragraph 2?

- A. Pullman had been successful in selling his sleeping cars.
- B. Though Pullman had been successful in test runs with his sleeping cars model; it could not be suitable with the transportation in Chicago.
- C. Pullman had recognized the demand for sleeping cars.
- D. Pullman had invested much money on developing the sleeping cars.

Question 25: What was the initial problem that made Pullman's cars unusable?

- A. They were too large.
- B. They were too expensive.
- C. They were too slow.
- D. They were too unusual.

Question 26: What is stated in the passage about George Pullman?

- A. He once had a job in a store.
- B. He always lived in Chicago.
- C. He worked in a mine.
- D. He saved money for his project.

Question 27: What is true about the sleeping cars?

- A. The experimental models of sleeping cars had not been successful until 1863.
- B. The Pioneer did not cost Pullman a fortune.
- C. The Pioneer was considered to be the most charming cars in comparison with others.
- D. The Pullman car was extremely beneficial because of its fitness through train station and bridges.

Question 28: Why did the state of Illinois want to use the Pullman in Lincoln's funeral train?

- A. It was superior to other cars.
- B. It was the only railroad car that could make it from Springfield to Chicago,
- C. Ulysses S. Grant requested it.
- D. The Pullman Palace Car Company was a major Illinois business.

Question 29: It can be inferred from the passage that the Michigan Central Railroad ____.

- A. was owned by George Pullman.
- B. controlled the railroad tracks between Detroit and Chicago,
- C. was the only railroad company to accommodate wider cars.
- D. was the sole manufacturer of the Pioneer.

Question 30: This passage would most likely be assigned in which of the following courses?

- A. Engineering
- B. Political science
- C. Finance
- D. History