

## SECTION II

Time—35 minutes

24 Questions

**Directions:** Each group of questions in this section is based on a set of conditions. In answering some of the questions, it may be useful to draw a rough diagram. Choose the response that most accurately and completely answers each question and blacken the corresponding space on your answer sheet.

**Questions 1–6**

During a period of seven consecutive days—from day 1 through day 7—seven investors—Fennelly, Gupta, Hall, Jones, Knight, López, and Moss—will each view a building site exactly once. Each day exactly one investor will view the site. The investors must view the site in accordance with the following conditions:

Fennelly views the site on day 3 or else day 5.

López views the site on neither day 4 nor day 6.

If Jones views the site on day 1, Hall views the site on day 2.

If Knight views the site on day 4, López views the site on day 5.

Gupta views the site on the day after the day on which Hall views the site.

1. Which one of the following could be the order in which the investors view the site, from day 1 through day 7?
  - (A) Hall, Gupta, Fennelly, Moss, Knight, López, Jones
  - (B) Hall, Gupta, López, Fennelly, Moss, Knight, Jones
  - (C) López, Gupta, Hall, Moss, Fennelly, Jones, Knight
  - (D) López, Jones, Fennelly, Knight, Hall Gupta, Moss
  - (E) López, Jones, Knight, Moss, Fennelly, Hall, Gupta
2. If Jones views the site on day 1, which one of the following investors must view the site on day 4?
  - (A) Fennelly
  - (B) Gupta
  - (C) Knight
  - (D) López
  - (E) Moss
3. If Knight views the site on day 4 and Moss views the site on some day after the day on which Jones views the site, which one of the following must be true?
  - (A) Jones views the site on day 1.
  - (B) Jones views the site on day 2.
  - (C) Jones views the site on day 6.
  - (D) Moss views the site on day 2.
  - (E) Moss views the site on day 6.
4. If Hall views the site on day 2, which one of the following is a complete and accurate list of investors any one of whom could be the investor who views the site on day 4?
  - (A) Knight
  - (B) Moss
  - (C) Jones, Moss
  - (D) Knight, Moss
  - (E) Jones, Knight, Moss
5. If Hall views the site on the day after the day Knight views the site and if Fennelly views the site on the day after the day López views the site, then Jones must view the site on day
  - (A) 1
  - (B) 2
  - (C) 3
  - (D) 4
  - (E) 5
6. If the day on which Gupta views the site and the day on which López views the site both come at some time before the day on which Fennelly views the site, which one of the following is an investor who could view the site on day 3?
  - (A) Fennelly
  - (B) Gupta
  - (C) Jones
  - (D) Knight
  - (E) Moss

GO ON TO THE NEXT PAGE.

Questions 7–12

A zoo's reptile house has a straight row of exactly five consecutive habitats—numbered 1 through 5 from left to right—for housing exactly seven reptiles—four snakes and three lizards. Five of the reptiles are female and two are male. The reptiles must be housed as follows:

- No habitat houses more than two reptiles.
- No habitat houses both a snake and a lizard.
- No female snake is housed in a habitat that is immediately next to a habitat housing a male lizard.

7. Which one of the following could be a complete and accurate matching of habitats to reptiles?
  - (A) 1: two female snakes; 2: one male snake; 3: one female lizard; 4: one male snake, one female lizard; 5: one female lizard
  - (B) 1: empty; 2: two female snakes; 3: two female lizards; 4: two male snakes; 5: one female lizard
  - (C) 1: one female snake, one male snake; 2: two female snakes; 3: one male lizard; 4: one female lizard; 5: one female lizard
  - (D) 1: two male snakes; 2: empty; 3: one female lizard; 4: one female lizard; 5: two female snakes, one female lizard
  - (E) 1: one female snake, one male snake; 2: one female snake, one male snake; 3: one male lizard; 4: one female lizard; 5: one female lizard
8. If habitat 2 contains at least one female snake and habitat 4 contains two male lizards, then which one of the following could be true?
  - (A) Habitat 3 contains two reptiles.
  - (B) Habitat 5 contains two reptiles.
  - (C) Habitat 1 contains a female lizard.
  - (D) Habitat 2 contains a female lizard.
  - (E) Habitat 5 contains a female lizard.
9. Which one of the following must be true?
  - (A) At least one female reptile is alone in a habitat.
  - (B) At least one male reptile is alone in a habitat.
  - (C) At least one lizard is alone in a habitat.
  - (D) At least one lizard is male.
  - (E) At least one snake is male.
10. Which one of the following CANNOT be the complete housing arrangement for habitats 1 and 2?
  - (A) 1: one female snake, one male snake; 2: one male snake
  - (B) 1: one male lizard; 2: one male snake
  - (C) 1: two female lizards; 2: one female snake
  - (D) 1: one male snake; 2: empty
  - (E) 1: empty; 2: one female lizard
11. If habitat 3 is empty, and no snake is housed in a habitat that is immediately next to a habitat containing a snake, then which one of the following could be false?
  - (A) All snakes are housed in even-numbered habitats.
  - (B) None of the lizards is male.
  - (C) No snake is alone in a habitat.
  - (D) No lizard is housed in a habitat that is immediately next to a habitat containing a lizard.
  - (E) Exactly one habitat contains exactly one reptile.
12. If all snakes are female and each of the lizards has a habitat to itself, then which one of the following habitats CANNOT contain any snakes?
  - (A) habitat 1
  - (B) habitat 2
  - (C) habitat 3
  - (D) habitat 4
  - (E) habitat 5

GO ON TO THE NEXT PAGE.

## Questions 13–19

Exactly seven film buffs—Ginnie, Ian, Lianna, Marcos, Reveka, Viktor, and Yow—attend a showing of classic films. Three films are shown, one directed by Fellini, one by Hitchcock, and one by Kurosawa. Each of the film buffs sees exactly one of the three films. The films are shown only once, one film at a time. The following restrictions must apply:

Exactly twice as many of the film buffs see the Hitchcock film as see the Fellini film.

Ginnie and Reveka do not see the same film as each other.

Ian and Marcos do not see the same film as each other.

Viktor and Yow see the same film as each other.

Lianna sees the Hitchcock film.

Ginnie sees either the Fellini film or the Kurosawa film.

13. Which one of the following could be an accurate matching of film buffs to films?
- (A) Ginnie: the Hitchcock film; Ian: the Kurosawa film; Marcos: the Hitchcock film
  - (B) Ginnie: the Kurosawa film; Ian: the Fellini film; Viktor: the Fellini film
  - (C) Ian: the Hitchcock film; Reveka: the Kurosawa film; Viktor: the Fellini film
  - (D) Marcos: the Kurosawa film; Reveka: the Kurosawa film; Viktor: the Kurosawa film
  - (E) Marcos: the Hitchcock film; Reveka: the Hitchcock film; Yow: the Hitchcock film
14. Each of the following must be false EXCEPT:
- (A) Reveka is the only film buff to see the Fellini film.
  - (B) Reveka is the only film buff to see the Hitchcock film.
  - (C) Yow is the only film buff to see the Kurosawa film.
  - (D) Exactly two film buffs see the Kurosawa film.
  - (E) Exactly three film buffs see the Hitchcock film.

15. Which one of the following could be a complete and accurate list of the film buffs who do NOT see the Hitchcock film?
- (A) Ginnie, Marcos
  - (B) Ginnie, Reveka
  - (C) Ginnie, Ian, Reveka
  - (D) Ginnie, Marcos, Yow
  - (E) Ginnie, Viktor, Yow
16. If exactly one film buff sees the Kurosawa film, then which one of the following must be true?
- (A) Viktor sees the Hitchcock film.
  - (B) Ginnie sees the Fellini film.
  - (C) Marcos sees the Fellini film.
  - (D) Ian sees the Fellini film.
  - (E) Reveka sees the Hitchcock film.
17. Which one of the following must be true?
- (A) Ginnie sees a different film than Ian does.
  - (B) Ian sees a different film than Lianna does.
  - (C) Ian sees a different film than Viktor does.
  - (D) Ian, Lianna, and Viktor do not all see the same film.
  - (E) Ginnie, Lianna, and Marcos do not all see the same film.
18. If Viktor sees the same film as Ginnie does, then which one of the following could be true?
- (A) Ginnie sees the Fellini film.
  - (B) Ian sees the Hitchcock film.
  - (C) Reveka sees the Kurosawa film.
  - (D) Viktor sees the Hitchcock film.
  - (E) Yow sees the Fellini film.
19. Each of the following could be complete and accurate list of the film buffs who see the Fellini film EXCEPT:
- (A) Ginnie, Ian
  - (B) Ginnie, Marcos
  - (C) Ian, Reveka
  - (D) Marcos, Reveka
  - (E) Viktor, Yow

GO ON TO THE NEXT PAGE.

Questions 20–24

Six cars are to be arranged in a straight line, and will be numbered 1 through 6, in order, from the front of the line to the back of the line. Each car is exactly one color: two are green, two are orange, and two are purple. The arrangement of cars is restricted as follows:

No car can be the same color as any car next to it in line.

Either car 5 or car 6 must be purple.

Car 1 cannot be orange.

Car 4 cannot be green.

20. The cars in which one of the following pairs CANNOT be the same color as each other?

(A) cars 1 and 4  
(B) cars 1 and 5  
(C) cars 3 and 5  
(D) cars 3 and 6  
(E) cars 4 and 6

21. If car 2 is the same color as car 4, then which one of the following statements must be true?

(A) Car 1 is purple.  
(B) Car 2 is orange.  
(C) Car 3 is green.  
(D) Car 5 is purple.  
(E) Car 6 is green

22. If car 4 is purple, which one of the following must be true?

(A) Car 1 is orange.  
(B) Car 2 is green.  
(C) Car 3 is orange.  
(D) Car 5 is green.  
(E) Car 6 is purple.

23. Which one of the following statements must be false?

(A) Car 2 is green.  
(B) Car 4 is orange.  
(C) Car 5 is purple.  
(D) Car 6 is orange.  
(E) Car 6 is green.

24. If one of the two orange cars is replaced by a third green car, and if the arrangement of cars in line must conform to the same restrictions as before, then which one of the following is a complete and accurate list of the cars each of which must be green?

(A) car 1  
(B) car 3  
(C) car 5  
(D) car 1, car 3  
(E) car 1, car 3, car 5

S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.  
DO NOT WORK ON ANY OTHER SECTION IN THE TEST.