

## SECTION II

Time—35 minutes

23 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

An administrator must assign parking spaces to six new employees: Robertson, Souza, Togowa, Vaughn, Xu, and Young. Each of the six employees must be assigned one of the following parking spaces: #1, #2, #3, #4, #5, or #6. No two employees can be assigned the same parking space. The following rules govern the assignment of parking spaces:

Young must be assigned a higher-numbered parking space than Togowa.

Xu must be assigned a higher-numbered parking space than Souza.

Robertson must be assigned a higher-numbered parking space than Young.

Robertson must be assigned parking space #1, #2, #3, or #4.

1. Which one of the following could be the assignment of parking spaces to the new employees?
  - (A) #1: Young; #2: Souza; #3: Vaughn; #4: Robertson; #5: Togowa; #6: Xu
  - (B) #1: Vaughn; #2: Togowa; #3: Young; #4: Souza; #5: Robertson; #6: Xu
  - (C) #1: Togowa; #2: Young; #3: Xu; #4: Robertson; #5: Souza; #6: Vaughn
  - (D) #1: Togowa; #2: Robertson; #3: Young; #4: Souza; #5: Vaughn; #6: Xu
  - (E) #1: Souza; #2: Togowa; #3: Young; #4: Robertson; #5: Xu; #6: Vaughn
2. If Togowa is assigned a higher-numbered parking space than Souza, then which one of the following could be true?
  - (A) Young is assigned parking space #2.
  - (B) Vaughn is assigned parking space #5.
  - (C) Togowa is assigned parking space #3.
  - (D) Souza is assigned parking space #2.
  - (E) Robertson is assigned parking space #3.
3. The assignment of parking spaces to each of the new employees is fully and uniquely determined if which one of the following is true?
  - (A) Souza is assigned parking space #1.
  - (B) Young is assigned parking space #2.
  - (C) Vaughn is assigned parking space #3.
  - (D) Robertson is assigned parking space #4.
  - (E) Xu is assigned parking space #5.
4. For how many of the six new employees is the assignment of a parking space limited to one of only two possible spaces?
  - (A) none
  - (B) two
  - (C) three
  - (D) four
  - (E) five
5. If Young is assigned a higher-numbered parking space than Souza, then which one of the following could be true?
  - (A) Togowa is assigned parking space #1.
  - (B) Young is assigned parking space #2.
  - (C) Robertson is assigned parking space #3.
  - (D) Souza is assigned parking space #3.
  - (E) Vaughn is assigned parking space #4.
6. If Robertson is assigned parking space #3, then which one of the following must be true?
  - (A) Souza is assigned parking space #4.
  - (B) Togowa is assigned parking space #2.
  - (C) Vaughn is assigned parking space #5.
  - (D) Xu is assigned parking space #6.
  - (E) Young is assigned parking space #2.

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Questions 7–12

A government needs to assign new ambassadors to Venezuela, Yemen, and Zambia. The candidates for these ambassadorships are Jaramillo, Kayne, Landon, Novetzke, and Ong. One ambassador will be assigned to each country, and no ambassador will be assigned to more than one country. The assignment of the ambassadors must meet the following constraints:

Either Kayne or Novetzke, but not both, is assigned to one of the ambassadorships.

If Jaramillo is assigned to one of the ambassadorships, then so is Kayne.

If Ong is assigned as ambassador to Venezuela, Kayne is not assigned as ambassador to Yemen.

If Landon is assigned to an ambassadorship, it is to Zambia.

7. Which one of the following could be the assignment of the ambassadors?
  - (A) Venezuela: Jaramillo  
Yemen: Ong  
Zambia: Novetzke
  - (B) Venezuela: Kayne  
Yemen: Jaramillo  
Zambia: Landon
  - (C) Venezuela: Landon  
Yemen: Novetzke  
Zambia: Ong
  - (D) Venezuela: Novetzke  
Yemen: Jaramillo  
Zambia: Kayne
  - (E) Venezuela: Ong  
Yemen: Kayne  
Zambia: Landon
8. The pair of candidates who are not assigned to ambassadorships could be
  - (A) Jaramillo and Novetzke
  - (B) Jaramillo and Ong
  - (C) Kayne and Landon
  - (D) Kayne and Novetzke
  - (E) Landon and Ong
9. If Ong is assigned as ambassador to Venezuela, then the other two ambassadors assigned could be
  - (A) Jaramillo and Landon
  - (B) Jaramillo and Novetzke
  - (C) Kayne and Landon
  - (D) Kayne and Novetzke
  - (E) Landon and Novetzke
10. If Kayne is assigned as ambassador to Yemen, which one of the following must be true?
  - (A) Jaramillo is assigned as ambassador to Venezuela.
  - (B) Landon is assigned as ambassador to Zambia.
  - (C) Ong is assigned as ambassador to Zambia.
  - (D) Jaramillo is not assigned to an ambassadorship.
  - (E) Ong is not assigned to an ambassadorship.
11. Which one of the following CANNOT be true?
  - (A) Jaramillo is assigned as ambassador to Zambia.
  - (B) Kayne is assigned as ambassador to Zambia.
  - (C) Novetzke is assigned as ambassador to Zambia.
  - (D) Landon is not assigned to an ambassadorship.
  - (E) Ong is not assigned to an ambassadorship.
12. Which one of the following, if substituted for the constraint that if Jaramillo is assigned to one of the ambassadorships, then so is Kayne, would have the same effect in determining the assignment of the ambassadors?
  - (A) If Kayne is assigned to an ambassadorship, then so is Jaramillo.
  - (B) If Landon and Ong are both assigned to ambassadorships, then so is Novetzke.
  - (C) If Ong is not assigned to an ambassadorship, then Kayne is assigned to an ambassadorship.
  - (D) Jaramillo and Novetzke are not both assigned to ambassadorships.
  - (E) Novetzke and Ong are not both assigned to ambassadorships.

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Questions 13–18

On the first day of a two-day study for a cycling magazine, four riders—Reynaldo, Seamus, Theresa, and Yuki—will each test one of four bicycles—F, G, H, and J. Each rider will then test a different one of the bicycles on the second day. Each rider tests only one bicycle per day, and all four bicycles are tested each day. The assignment of riders to bicycles is subject to the following conditions:

Reynaldo cannot test F.

Yuki cannot test J.

Theresa must be one of the testers for H.

The bicycle that Yuki tests on the first day must be tested by Seamus on the second day.

13. Which one of the following is a possible assignment of riders to bicycles, with the riders for each bicycle listed in the order in which they test the bicycle?

- (A) F: Seamus, Reynaldo; G: Yuki, Seamus;  
H: Theresa, Yuki; J: Reynaldo, Theresa
- (B) F: Seamus, Yuki; G: Reynaldo, Theresa;  
H: Yuki, Seamus; J: Theresa, Reynaldo
- (C) F: Yuki, Seamus; G: Seamus, Reynaldo;  
H: Theresa, Yuki; J: Reynaldo, Theresa
- (D) F: Yuki, Seamus; G: Theresa, Reynaldo;  
H: Reynaldo, Theresa; J: Seamus, Yuki
- (E) F: Yuki, Theresa; G: Seamus, Yuki;  
H: Theresa, Reynaldo; J: Reynaldo, Seamus

14. If Theresa tests G on the second day, then which one of the following must be true?

- (A) Reynaldo tests H on the first day.
- (B) Reynaldo tests J on the first day.
- (C) Theresa tests H on the second day.
- (D) Theresa tests J on the first day.
- (E) Yuki tests H on the second day.

15. Any of the following could be true EXCEPT:

- (A) Reynaldo tests J on the first day.
- (B) Reynaldo tests J on the second day.
- (C) Seamus tests H on the first day.
- (D) Yuki tests H on the first day.
- (E) Yuki tests H on the second day.

16. Which one of the following CANNOT be true?

- (A) Reynaldo tests G on the second day.
- (B) Seamus tests F on the first day.
- (C) Theresa tests F on the second day.
- (D) Reynaldo tests H on the first day.
- (E) Yuki tests F on the second day.

17. If Theresa tests J on the first day, then which one of the following could be true?

- (A) Reynaldo tests G on the second day.
- (B) Seamus tests H on the first day.
- (C) Yuki tests H on the second day.
- (D) Seamus is one of the testers for J.
- (E) Theresa is one of the testers for G.

18. Which one of the following CANNOT be true?

- (A) Both Reynaldo and Seamus test J.
- (B) Both Reynaldo and Theresa test J.
- (C) Both Reynaldo and Yuki test G.
- (D) Both Seamus and Theresa test G.
- (E) Both Theresa and Yuki test F.

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Questions 19–23

Exactly eight books—F, G, H, I, K, L, M, O—are placed on a bookcase with exactly three shelves—the top shelf, the middle shelf, and the bottom shelf. At least two books are placed on each shelf. The following conditions must apply:

More of the books are placed on the bottom shelf than the top shelf.

I is placed on the middle shelf.

K is placed on a higher shelf than F.

O is placed on a higher shelf than L.

F is placed on the same shelf as M.

19. Which one of the following could be a complete and accurate list of the books placed on the bottom shelf?
  - (A) F, M
  - (B) F, H, M
  - (C) G, H, K
  - (D) F, G, M, O
  - (E) G, H, L, M
20. It is fully determined which of the shelves each of the books is placed on if which one of the following is true?
  - (A) I and M are placed on the same shelf as each other.
  - (B) K and G are placed on the same shelf as each other.
  - (C) L and F are placed on the same shelf as each other.
  - (D) M and H are placed on the same shelf as each other.
  - (E) H and O are placed on the same shelf as each other.
21. Which one of the following must be true?
  - (A) O is placed on a shelf higher than the shelf M is placed on.
  - (B) K is placed on a shelf higher than the shelf G is placed on.
  - (C) I is placed on a shelf higher than the shelf F is placed on.
  - (D) G is placed on a shelf higher than the shelf O is placed on.
  - (E) F is placed on a shelf higher than the shelf L is placed on.
22. If G is placed on the top shelf, then which one of the following could be a complete and accurate list of the books placed on the middle shelf?
  - (A) H, I
  - (B) I, L
  - (C) H, I, L
  - (D) I, K, L
  - (E) F, I, M
23. If L is placed on a shelf higher than the shelf H is placed on, then which one of the following must be true?
  - (A) F and G are placed on the same shelf as each other.
  - (B) G and H are placed on the same shelf as each other.
  - (C) H and M are placed on the same shelf as each other.
  - (D) I and G are placed on the same shelf as each other.
  - (E) K and O are placed on the same shelf as each other.

## 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.