SECTION III

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 1-5

A school has exactly four dormitories that are to be fully occupied—Richards, Tuscarora, Veblen, and Wisteria—each consisting entirely of a North wing and a South wing. The following rules govern assignment of students to dormitory wings:

Each wing is assigned only male students or only female students.
Exactly three wings have males assigned to them.
Richards North and Tuscarora North are assigned females.
If a dormitory has males assigned to one of its wings, then its other wing is assigned females.
If males are assigned to Veblen South, then Wisteria North is assigned males.

1. If females are assigned to Veblen South and Veblen North, then which one of the following could be two other wings that are also assigned females?

(A) Richards North and Tuscarora South
(B) Richards South and Wisteria South
(C) Richards South and Tuscarora North
(D) Tuscarora North and Wisteria South
(E) Tuscarora South and Wisteria South

2. It CANNOT be true that females are assigned to both

(A) Richards South and Wisteria South
(B) Richards South and Tuscarora South
(C) Richards South and Veblen North
(D) Tuscarora South and Wisteria South
(E) Veblen North and Wisteria South

3. If Wisteria North is assigned females, then females must also be assigned to which one of the following?

(A) Richards South
(B) Wisteria South
(C) Tuscarora South
(D) Veblen South
(E) Veblen North

4. If males are assigned to Veblen South, which one of the following is a complete and accurate list of the wings that CANNOT be assigned males?

(A) Richards North, Tuscarora North
(B) Richards North, Tuscarora North, Veblen North
(C) Richards North, Tuscarora North, Wisteria South
(D) Richards North, Tuscarora North, Veblen North, Wisteria South
(E) Richards North, Richards South, Tuscarora North, Veblen North, Wisteria South

5. If Tuscarora South is assigned females, then it could be true that females are assigned to both

(A) Richards South and Wisteria North
(B) Richards South and Wisteria South
(C) Veblen North and Wisteria North
(D) Veblen South and Wisteria South
(E) Veblen South and Veblen North

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Questions 6-11

In a single day, exactly seven trucks—S, T, U, W, X, Y, and Z—are the only arrivals at a warehouse. No truck arrives at the same time as any other truck, and no truck arrives more than once that day. Each truck is either green or red (but not both). The following conditions apply:

No two consecutive arrivals are red.
Y arrives at some time before both T and W.
Exactly two of the trucks that arrive before Y are red.
S is the sixth arrival.
Z arrives at some time before U.

6. Which one of the following could be the order, from first to last, in which the trucks arrive?

(A) X, Z, U, Y, W, S, T
(B) X, Y, Z, U, W, S, T
(C) Z, W, U, T, Y, S, X
(D) Z, U, T, Y, W, S, X
(E) U, Z, Y, T, S, W, X

7. For which one of the following pairs of trucks is it the case that they CANNOT both be red?

(A) S and X
(B) T and S
(C) U and W
(D) W and T
(E) X and Z

8. If X is the third arrival, then which one of the following trucks must be green?

(A) S
(B) T
(C) U
(D) W
(E) Z

9. If exactly three of the trucks are green, then which one of the following trucks must be green?

(A) S
(B) T
(C) U
(D) W
(E) Z

10. For exactly how many of the seven trucks can one determine exactly how many trucks arrived before it?

(A) one
(B) two
(C) three
(D) four
(E) five

11. Which one of the following pairs of trucks CANNOT arrive consecutively at the warehouse?

(A) U and Y
(B) X and Y
(C) Y and T
(D) Y and W
(E) Y and Z

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Questions 12-18

A total of six books occupies three small shelves—one on the first shelf, two on the second shelf, and three on the third shelf. Two of the books are grammars—one of Farsi, the other of Hausa. Two others are linguistics monographs—one on phonology, the other on semantics. The remaining two books are novels—one by Vonnegut, the other by Woolf. The books' arrangement is consistent with the following:

There is at least one novel on the same shelf as the Farsi grammar.
The monographs are not both on the same shelf.
The Vonnegut novel is not on the same shelf as either monograph.

12. Which one of the following could be an accurate matching of the bookshelves to the books on each of them?

(A) first shelf: Hausa grammar
second shelf: semantics monograph, Vonnegut novel
third shelf: Farsi grammar, phonology monograph, Woolf novel

(B) first shelf: semantics monograph
second shelf: Farsi grammar, Vonnegut novel
third shelf: Hausa grammar, phonology monograph, Woolf novel

(C) first shelf: Vonnegut novel
second shelf: phonology monograph, Farsi grammar
third shelf: Hausa grammar, semantics monograph, Woolf novel

(D) first shelf: Woolf novel
second shelf: phonology and semantics monographs
third shelf: Farsi and Hausa grammars, Vonnegut novel

(E) first shelf: Woolf novel
second shelf: Farsi grammar, Vonnegut novel
third shelf: Hausa grammar, phonology and semantics monographs

13. Which one of the following CANNOT be true?

(A) A grammar is on the first shelf.
(B) A linguistics monograph is on the same shelf as the Hausa grammar.
(C) A novel is on the first shelf.
(D) The novels are on the same shelf as each other.
(E) Neither linguistics monograph is on the first shelf.

14. Which one of the following must be true?

(A) A linguistics monograph and a grammar are on the second shelf.
(B) A novel and a grammar are on the second shelf.
(C) At least one linguistics monograph and at least one grammar are on the third shelf.
(D) At least one novel and at least one grammar are on the third shelf.
(E) At least one novel and at least one linguistics monograph are on the third shelf.

15. If both grammars are on the same shelf, which one of the following could be true?

(A) The phonology monograph is on the third shelf.
(B) A novel is on the first shelf.
(C) Both novels are on the second shelf.
(D) The Farsi grammar is on the second shelf.
(E) The phonology monograph is on the first shelf.

16. Which one of the following must be true?

(A) A linguistics monograph is on the first shelf.
(B) No more than one novel is on each shelf.
(C) The Farsi grammar is not on the same shelf as the Hausa grammar.
(D) The semantics monograph is not on the same shelf as the Woolf novel.
(E) The Woolf novel is not on the first shelf.

17. If the Farsi grammar is not on the third shelf, which one of the following could be true?

(A) The phonology monograph is on the second shelf.
(B) The Hausa grammar is on the second shelf.
(C) The semantics monograph is on the third shelf.
(D) The Vonnegut novel is on the third shelf.
(E) The Woolf novel is on the second shelf.

18. If the Hausa grammar and the phonology monograph are on the same shelf, which one of the following must be true?

(A) The phonology monograph is on the third shelf.
(B) The Vonnegut novel is on the second shelf.
(C) The semantics monograph is on the second shelf.
(D) The semantics monograph is on the first shelf.
(E) The Woolf novel is on the third shelf.

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Questions 19-24

A swim team with exactly five members—Jacobson, Kruger, Lu, Miller, Ortiz—swims a ten-lap relay race. Each team member swims exactly two of the laps: one swims laps 1 and 6, one swims laps 2 and 7, one swims laps 3 and 8, one swims laps 4 and 9, and one swims laps 5 and 10. The following conditions apply:

Neither of Kruger's laps is immediately before either of Lu's.
Jacobson does not swim lap 9.
Ortiz's first lap is after (but not necessarily immediately after) Miller's.
At least one of Jacobson's laps is immediately after one of Ortiz's laps.

19. Which one of the following could be an accurate list of the swimmers of the first five laps, in order from lap 1 through lap 5?

(A) Jacobson, Kruger, Miller, Lu, Ortiz
(B) Kruger, Miller, Ortiz, Jacobson, Lu
(C) Lu, Miller, Jacobson, Kruger, Ortiz
(D) Ortiz, Kruger, Miller, Lu, Jacobson
(E) Miller, Ortiz, Jacobson, Kruger, Lu

20. If Jacobson swims lap 8, then for exactly how many of the ten laps can one determine which team member swims the lap?

(A) ten
(B) eight
(C) six
(D) four
(E) two

21. If Ortiz swims lap 4, then which one of the following could be true?

(A) Jacobson swims lap 1.
(B) Jacobson swims lap 3.
(C) Kruger swims lap 5.
(D) Lu swims lap 3.
(E) Miller swims lap 5.

22. Which one of the following could be true?

(A) Jacobson swims lap 4.
(B) Kruger swims lap 5.
(C) Lu swims lap 5.
(D) Miller swims lap 10.
(E) Ortiz swims lap 6.

23. Jacobson CANNOT swim which one of the following laps?

(A) lap 1
(B) lap 2
(C) lap 3
(D) lap 6
(E) lap 10

24. Which one of the following could be an accurate list of the swimmers of the last five laps, in order from lap 6 through lap 10?

(A) Jacobson, Miller, Kruger, Ortiz, Lu
(B) Kruger, Lu, Miller, Ortiz, Jacobson
(C) Lu, Kruger, Miller, Ortiz, Jacobson
(D) Miller, Kruger, Ortiz, Jacobson, Lu
(E) Ortiz, Jacobson, Kruger, Miller, Lu

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.