

SECTION III  
Time—35 minutes  
23 Questions

Directions: Each set of questions in this section is based on a scenario with a set of conditions. The questions are to be answered on the basis of what can be logically inferred from the scenario and conditions. For each question, choose the response that most accurately and completely answers the question and mark that response on your answer sheet.

Questions 1–5

An investigator is trying to determine the order in which five successive phone calls were made—one call each to Quinn, Roth, Smith, Teng, and Vitt. Each call was of one of two types—local or nonlocal. The following facts have been established thus far:

Quinn's call was immediately before Vitt's but at some time after Smith's.

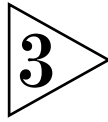
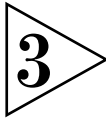
Smith's call was of a different type than Vitt's.

Quinn's call and Teng's call were both local.

The third call was nonlocal.

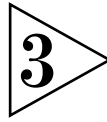
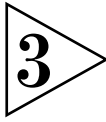
1. Which one of the following could be an accurate matching of the calls to their types, listed in order from the first call to the last?
  - (A) Smith's: local; Quinn's: local; Roth's: nonlocal; Teng's: local; Vitt's: nonlocal
  - (B) Smith's: local; Quinn's: local; Vitt's: nonlocal; Teng's: local; Roth's: local
  - (C) Smith's: local; Teng's: local; Roth's: nonlocal; Quinn's: local; Vitt's: local
  - (D) Teng's: local; Smith's: local; Quinn's: local; Vitt's: nonlocal; Roth's: nonlocal
  - (E) Teng's: local; Smith's: local; Roth's: nonlocal; Quinn's: nonlocal; Vitt's: nonlocal

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2. If Roth's call was second, then which one of the following must be true?
- (A) The first call was nonlocal.
  - (B) The second call was nonlocal.
  - (C) The fourth call was nonlocal.
  - (D) The first call was local.
  - (E) The second call was local.
3. If Teng's call was fifth, then which one of the following could be true?
- (A) The fourth call was nonlocal.
  - (B) The second call was nonlocal.
  - (C) The first call was nonlocal.
  - (D) Smith's call was third.
  - (E) Roth's call was first.
4. If Roth's call was local, then which one of the following must be false?
- (A) Quinn's call was fourth.
  - (B) Roth's call was second.
  - (C) Smith's call was second.
  - (D) Teng's call was first.
  - (E) Vitt's call was fifth.
5. If the first call was nonlocal, then for exactly how many of the recipients' calls can their positions in the order of calls be determined?
- (A) one
  - (B) two
  - (C) three
  - (D) four
  - (E) five

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Questions 6–11

Six coworkers—Faye, Gary, Henry, Jasmine, Luis, and Martha—are planning to play table tennis during lunch. There will be a total of three games of table tennis, each involving exactly two of the six coworkers. Each coworker will play in exactly one game. The three games take place one after the other. The following conditions govern who plays in which game:

Neither Faye nor Gary can play in the first game.

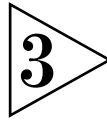
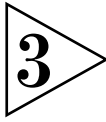
Neither Jasmine nor Luis can play in the third game.

Faye must play against either Gary or Henry.

Gary cannot play against Jasmine.

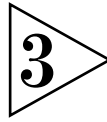
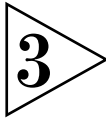
6. Which one of the following could be the three games, listed in the order in which they occur?
- (A) Faye against Henry; Jasmine against Luis; Gary against Martha
  - (B) Henry against Jasmine; Faye against Gary; Luis against Martha
  - (C) Henry against Luis; Faye against Jasmine; Gary against Martha
  - (D) Jasmine against Martha; Henry against Luis; Faye against Gary
  - (E) Luis against Martha; Gary against Jasmine; Faye against Henry

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7. If Martha plays in the third game, Luis must play against
- (A) Faye
  - (B) Gary
  - (C) Henry
  - (D) Jasmine
  - (E) Martha
8. If Jasmine plays in the second game, which one of the following could be one of the three games?
- (A) Faye against Henry
  - (B) Faye against Martha
  - (C) Gary against Luis
  - (D) Gary against Martha
  - (E) Henry against Luis
9. If Faye plays against Henry in one of the games, which one of the following must be true?
- (A) Faye plays in the second game.
  - (B) Henry plays in the third game.
  - (C) Jasmine plays in the first game.
  - (D) Luis plays in the first game.
  - (E) Martha plays in the third game.
10. Exactly how many of the coworkers are there any one of whom could play in the second game?
- (A) two
  - (B) three
  - (C) four
  - (D) five
  - (E) six
11. Which one of the following, if substituted for the condition that Gary cannot play against Jasmine, would have the same effect in determining who plays in which game?
- (A) If Henry plays in the first game, Gary must play in the third game.
  - (B) If Jasmine plays in the second game, Gary must play in the third game.
  - (C) Jasmine must play in the game immediately before Faye's.
  - (D) Jasmine must play in the game immediately before Gary's.
  - (E) Gary cannot play against Luis.

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Questions 12–17

An academic society will hold exactly six meetings during the next school year: three in the fall semester and three in the spring semester. Each meeting will be hosted by one of five cities—Honolulu, Montreal, Omaha, Tampa, and Vancouver—with each city hosting at least one meeting. No city will host more than one meeting per semester. The following constraints hold:

If Honolulu hosts a meeting in the fall, then Montreal must also host a meeting in the fall.

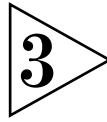
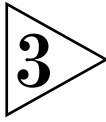
If Vancouver hosts a meeting in the spring, then Tampa must also host a meeting in the spring.

In each semester, either Montreal or Vancouver or both must host a meeting.

12. If the only meeting that Montreal hosts is in the spring, which one of the following could be true?

- (A) Honolulu hosts meetings in both semesters.
- (B) Tampa hosts meetings in both semesters.
- (C) Honolulu hosts a meeting in the fall only.
- (D) Omaha hosts a meeting in the spring only.
- (E) Tampa hosts a meeting in the spring only.

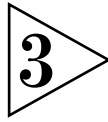
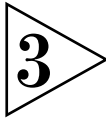
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13. If Omaha hosts two of the meetings, which one of the following must be true?
- (A) Honolulu hosts a meeting in the fall.
  - (B) Tampa hosts a meeting in the fall.
  - (C) Montreal hosts a meeting in the spring.
  - (D) Honolulu and Vancouver host meetings in the same semester as each other.
  - (E) Tampa and Vancouver host meetings in the same semester as each other.
14. Which one of the following CANNOT be an accurate partial matching of the cities with the semesters in which they host meetings?
- (A) fall: Honolulu  
spring: Honolulu, Vancouver
  - (B) fall: Montreal  
spring: Honolulu, Tampa
  - (C) fall: Omaha  
spring: Montreal, Tampa
  - (D) fall: Honolulu, Tampa  
spring: Montreal
  - (E) fall: Honolulu, Vancouver  
spring: Vancouver

15. Which one of the following CANNOT be, in either semester, the group of cities hosting the three meetings?
- (A) Honolulu, Montreal, and Tampa
  - (B) Honolulu, Montreal, and Vancouver
  - (C) Honolulu, Omaha, and Vancouver
  - (D) Honolulu, Tampa, and Vancouver
  - (E) Montreal, Omaha, and Vancouver
16. If Tampa hosts two of the meetings, which one of the following could be true?
- (A) Honolulu and Vancouver both host meetings in the fall.
  - (B) Montreal and Omaha both host meetings in the fall.
  - (C) Montreal and Vancouver both host meetings in the fall.
  - (D) Montreal and Omaha both host meetings in the spring.
  - (E) Montreal and Vancouver both host meetings in the spring.
17. If Honolulu hosts a meeting in the fall, which one of the following must be true?
- (A) Omaha hosts a meeting in the fall.
  - (B) Montreal hosts a meeting in the spring.
  - (C) Omaha hosts a meeting in the spring.
  - (D) Tampa hosts a meeting in the spring.
  - (E) Vancouver hosts a meeting in the spring.

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Questions 18–23

During an eight-day theater festival, exactly six plays—*Ghosts*, *Hapgood*, *Jitney*, *Loot*, *Macbeth*, and *Othello*—will be performed. There will be one performance each day, subject to the following constraints:

The play performed on day 1 must also be performed on day 5.

The play performed on day 2 must also be performed on day 7.

*Macbeth* and *Othello* cannot be performed on consecutive days.

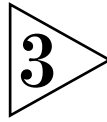
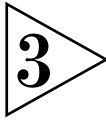
For at least one performance of *Hapgood*, the next play performed must be *Macbeth*.

There must be a performance of *Jitney* at some time before there is any performance of *Hapgood*.

18. Which one of the following could be the order in which the plays are performed, from first to last?

- (A) *Ghosts*, *Jitney*, *Hapgood*, *Macbeth*, *Ghosts*, *Loot*, *Jitney*, *Othello*
- (B) *Jitney*, *Ghosts*, *Othello*, *Hapgood*, *Jitney*, *Loot*, *Ghosts*, *Macbeth*
- (C) *Jitney*, *Hapgood*, *Macbeth*, *Othello*, *Jitney*, *Ghosts*, *Hapgood*, *Loot*
- (D) *Loot*, *Hapgood*, *Macbeth*, *Ghosts*, *Loot*, *Othello*, *Hapgood*, *Jitney*
- (E) *Loot*, *Jitney*, *Hapgood*, *Macbeth*, *Loot*, *Jitney*, *Ghosts*, *Othello*

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19. Which one of the following must be false?

- (A) *Ghosts* is performed on day 2
- (B) *Ghosts* is performed on day 5.
- (C) *Hapgood* is performed on day 2.
- (D) *Hapgood* is performed on day 5.
- (E) *Loot* is performed on day 5.

20. If *Othello* is performed on day 3, which one of the following could be true?

- (A) *Ghosts* is performed on day 2.
- (B) *Hapgood* is performed on day 2.
- (C) *Loot* is performed on day 1.
- (D) *Loot* is performed on day 7.
- (E) *Macbeth* is performed on day 7.

21. If *Hapgood* is performed on day 2, which one of the following could be true?

- (A) *Ghosts* is performed on day 1.
- (B) *Jitney* is performed on day 3.
- (C) *Loot* is performed on day 8.
- (D) *Macbeth* is performed on day 4.
- (E) *Othello* is performed on day 5.

22. If *Macbeth* is performed on day 2, which one of the following must be true?

- (A) *Ghosts* is performed on day 6.
- (B) *Hapgood* is performed on day 3.
- (C) *Jitney* is performed on day 1.
- (D) *Loot* is performed on day 8.
- (E) *Othello* is performed on day 4.

23. If *Loot* is performed on day 7 and *Othello* is performed on day 8, which one of the following must be true?

- (A) *Ghosts* is performed on day 6.
- (B) *Hapgood* is performed on day 3.
- (C) *Jitney* is performed on day 1.
- (D) *Macbeth* is performed on day 4.
- (E) *Macbeth* is performed on day 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.