

SECTION I

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 1–7

During a period of six consecutive days—day 1 through day 6—each of exactly six factories—F, G, H, J, Q, and R—will be inspected. During this period, each of the factories will be inspected exactly once, one factory per day. The schedule for the inspections must conform to the following conditions:

F is inspected on either day 1 or day 6.

J is inspected on an earlier day than Q is inspected.

Q is inspected on the day immediately before R is inspected.

If G is inspected on day 3, Q is inspected on day 5.

1. Which one of the following could be a list of the factories in the order of their scheduled inspections, from day 1 through day 6?
 - (A) F, Q, R, H, J, G
 - (B) G, H, J, Q, R, F
 - (C) G, J, Q, H, R, F
 - (D) G, J, Q, R, F, H
 - (E) J, H, G, Q, R, F
2. Which one of the following must be false?
 - (A) The inspection of G is scheduled for day 4.
 - (B) The inspection of H is scheduled for day 6.
 - (C) The inspection of J is scheduled for day 4.
 - (D) The inspection of Q is scheduled for day 3.
 - (E) The inspection of R is scheduled for day 2.
3. The inspection of which one of the following CANNOT be scheduled for day 5?
 - (A) G
 - (B) H
 - (C) J
 - (D) Q
 - (E) R
4. The inspection scheduled for day 3 and day 5, respectively, could be those of
 - (A) G and H
 - (B) G and R
 - (C) H and G
 - (D) R and J
 - (E) R and H
5. If the inspection of R is scheduled for the day immediately before the inspection of F, which one of the following must be true about the schedule?
 - (A) The inspection of either G or H is scheduled for day 1.
 - (B) The inspection of either G or J is scheduled for day 1.
 - (C) The inspection of either G or J is scheduled for day 2.
 - (D) The inspection of either H or J is scheduled for day 3.
 - (E) The inspection of either H or J is scheduled for day 4.
6. If the inspection of G and of H are scheduled, not necessarily in that order, for days as far apart as possible, which one of the following is a complete and accurate list of the factories any one of which could be scheduled for inspection for day 1?
 - (A) F, J
 - (B) G, H
 - (C) G, H, J
 - (D) F, G, H
 - (E) F, G, H, J
7. If the inspection of G is scheduled for the day immediately before the inspection of Q, which one of the following could be true?
 - (A) The inspection of G is scheduled for day 5.
 - (B) The inspection of H is scheduled for day 6.
 - (C) The inspection of J is scheduled for day 2.
 - (D) The inspection of Q is scheduled for day 4.
 - (E) The inspection of R is scheduled for day 3.

GO ON TO THE NEXT PAGE.

Questions 8–12

In a theater company, four two-day workshops—Lighting, Production, Rehearsals, and Staging—are conducted over the course of five days, Monday through Friday. The workshops are conducted in a manner consistent with the following constraints:

The two days on which a given workshop is in session are consecutive.

On each of the five days, at least one, but no more than two, of the workshops are in session.

The workshops on Production and Rehearsals begin no earlier than the day immediately following the second day of the workshop on Lighting.

8. Which one of the following could be true?
 - (A) Only one workshop is in session on Thursday.
 - (B) Only one workshop is in session on Friday.
 - (C) The workshop on Rehearsals is in session on Tuesday.
 - (D) The workshop on Staging is in session on Thursday.
 - (E) The workshops in Rehearsals and Production are both in session on Wednesday.
9. Which one of the following could be true?
 - (A) The workshop on Lighting is in session on Wednesday, and the workshop on Rehearsals is in session on Tuesday.
 - (B) The workshop on Lighting is in session on Wednesday, and the only workshop in session on Thursday is the workshop on Rehearsals.
 - (C) The workshop on Lighting is in session on Wednesday, and the only workshop in session on Monday is the workshop on Staging.
 - (D) The workshop on Lighting is in session on Monday, and the only workshop in session on Thursday is the workshop on Staging.
 - (E) The workshops on Lighting and Production are both in session on Wednesday.
10. If the workshop on Production is in session on Wednesday, which one of the following must be true?
 - (A) The workshop on Lighting is in session on Monday.
 - (B) The workshop on Rehearsals is in session on Wednesday.
 - (C) The workshop on Staging is in session on Thursday.
 - (D) The workshop on Staging is in session on Monday.
 - (E) The workshop on Staging is in session on Wednesday.
11. If the workshop on production is the only workshop in session on Friday, which one of the following must be false?
 - (A) The workshop on Lighting is in session both on Tuesday and on Wednesday.
 - (B) The workshop on Rehearsals is in session both on Wednesday and on Thursday.
 - (C) The workshop on Staging is in session both on Monday and on Tuesday.
 - (D) The workshop on Lighting is in session on the same two days as is the workshop on Staging.
 - (E) The workshop on Rehearsals is in session on a day when the workshop on Staging is also in session.
12. If the workshop on Lighting is the only workshop in session on Monday, which one of the following could be true?
 - (A) The workshops on Rehearsals and Staging are both in session on Tuesday.
 - (B) The workshop on Rehearsals is the only workshop in session on Wednesday.
 - (C) The workshop on Staging is the only workshop in session on Wednesday.
 - (D) The workshops on Staging and Rehearsals are both in session on Wednesday and on Thursday.
 - (E) The workshops on Staging and Production are both in session on Thursday.

GO ON TO THE NEXT PAGE.

Questions 13–19

Each of two boats, boat 1 and boat 2, will be assigned exactly four people. Exactly eight people, three adults—F, G, and H—and five children—V, W, X, Y, and Z—must be assigned to the boats according to the following conditions:

Each boat is assigned at least one adult.

If F is assigned to boat 2, G is assigned to boat 2.

If V is assigned to boat 1, W is assigned to boat 2.

X and Z are assigned to different boats.

13. Which one of the following is an acceptable assignment of people to boat 1?
- (A) F, G, H, X
 - (B) F, H, W, Y
 - (C) F, H, Y, Z
 - (D) F, V, W, X
 - (E) G, H, X, Y
14. If F is assigned to boat 2, which one of the following is a pair of people who could be assigned to the same boat as each other?
- (A) F and Y
 - (B) G and H
 - (C) G and Y
 - (D) V and W
 - (E) Y and Z
15. If exactly three children are assigned to boat 1, which one of the following is a pair of people who could both be assigned to boat 2?
- (A) F and H
 - (B) G and Y
 - (C) H and W
 - (D) V and W
 - (E) W and Y
16. If G is assigned to boat 1, which one of the following must be true?
- (A) H is assigned to boat 2.
 - (B) V is assigned to boat 2.
 - (C) Exactly one adult is assigned to boat 1.
 - (D) Exactly two adults are assigned to boat 2.
 - (E) Exactly two children are assigned to boat 2.
17. If V and W are assigned to the same boat as each other, which one of the following is a pair of people who must also be assigned to the same boat as each other?
- (A) F and H
 - (B) F and Y
 - (C) G and X
 - (D) W and X
 - (E) Y and Z
18. If H is assigned to a different boat than Y, which one of the following must be assigned to boat 1?
- (A) F
 - (B) G
 - (C) H
 - (D) V
 - (E) Y
19. If exactly one adult is assigned to boat 1, which one of the following must be true?
- (A) F is assigned to boat 1.
 - (B) G is assigned to boat 2.
 - (C) H is assigned to boat 2.
 - (D) V is assigned to boat 1.
 - (E) Z is assigned to boat 2.

GO ON TO THE NEXT PAGE.

Questions 20–24

Each of nine students—Faith, Gregory, Harlan, Jennifer, Kenji, Lisa, Marcus, Nari, and Paul—will be assigned to exactly one of three panels: Oceans, Recycling, and Wetlands. Exactly three of the students will be assigned to each panel. The assignment of students to panels must meet the following conditions:

- Faith is assigned to the same panel as Gregory.
- Kenji is assigned to the same panel as Marcus.
- Faith is not assigned to the same panel as Paul.
- Gregory is not assigned to the same panel as Harlan.
- Jennifer is not assigned to the same panel as Kenji.
- Harlan is not assigned to the Oceans panel if Paul is not assigned to the Oceans panel.

20. Which one of the following is an acceptable assignment of students to the panels?
- (A) Oceans: Faith, Gregory, Jennifer
Recycling: Kenji, Lisa, Nari
Wetlands: Harlan, Marcus, Paul
 - (B) Oceans: Faith, Jennifer, Lisa
Recycling: Harlan, Kenji, Marcus
Wetlands: Gregory, Nari, Paul
 - (C) Oceans: Harlan, Kenji, Marcus
Recycling: Faith, Gregory, Jennifer
Wetlands: Lisa, Nari, Paul
 - (D) Oceans: Jennifer, Kenji, Marcus
Recycling: Faith, Gregory, Nari
Wetlands: Harlan, Lisa, Paul
 - (E) Oceans: Kenji, Marcus, Paul
Recycling: Harlan, Jennifer, Nari
Wetlands: Faith, Gregory, Lisa
21. If Marcus and Paul are both assigned to the Wetlands panel, which one of the following must be true?
- (A) Harlan is assigned to the Recycling panel.
 - (B) Jennifer is assigned to the Oceans panel.
 - (C) Kenji is assigned to the Recycling panel.
 - (D) Lisa is assigned to the Wetlands panel.
 - (E) Nari is assigned to the Oceans panel.
22. Which one of the following is a pair of students who could be assigned to the same panel as each other?
- (A) Faith and Harlan
 - (B) Gregory and Paul
 - (C) Harlan and Marcus
 - (D) Faith and Marcus
 - (E) Jennifer and Marcus
23. If Kenji and Paul are both assigned to the Recycling panel, which one of the following could be true?
- (A) Faith is assigned to the Wetlands panel.
 - (B) Gregory is assigned to the Recycling panel.
 - (C) Harlan is assigned to the Oceans panel.
 - (D) Jennifer is assigned to the Wetlands panel.
 - (E) Lisa is assigned to the Recycling panel.
24. Each of the following is a pair of students who could be assigned to the same panel as each other EXCEPT:
- (A) Gregory and Kenji
 - (B) Gregory and Lisa
 - (C) Kenji and Nari
 - (D) Lisa and Marcus
 - (E) Lisa and Paul

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.