

SECTION I

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 1–5

A law firm has seven departments—family law, health law, injury law, labor law, probate, securities, and tax law. The firm is to occupy a building with three floors—the bottom floor, the middle floor, and the top floor. Each floor can accommodate up to four departments, and no department is to be on more than one floor. Assignment of departments to floors is subject to the following constraints:

Probate must be on the same floor as tax law.

Health law must be on the floor immediately above injury law.

Labor law must occupy an entire floor by itself.

1. Which one of the following could be the assignment of departments to floors?
 - (A) top floor: labor law
middle floor: injury law, probate, tax law
bottom floor: family law, health law, securities
 - (B) top floor: family law, health law, probate
middle floor: injury law, securities, tax law
bottom floor: labor law
 - (C) top floor: health law, probate, tax law
middle floor: family law, injury law, securities
bottom floor: labor law
 - (D) top floor: health law, probate, tax law
middle floor: injury law, securities
bottom floor: family law, labor law
 - (E) top floor: family law, health law, probate, tax law
middle floor: labor law
bottom floor: injury law, securities
2. If injury law and probate are both assigned to the middle floor, which one of the following could be true?
 - (A) Family law is assigned to the middle floor.
 - (B) Health law is assigned to the middle floor.
 - (C) Labor law is assigned to the top floor.
 - (D) Securities is assigned to the bottom floor.
 - (E) Tax law is assigned to the top floor.
3. Which one of the following CANNOT be the assignment for any of the floors?
 - (A) family law, health law, probate, and tax law
 - (B) family law, injury law, probate, and tax law
 - (C) family law, probate, securities, and tax law
 - (D) health law, probate, securities, and tax law
 - (E) injury law, probate, securities, and tax law
4. If family law is assigned to the same floor as securities, which one of the following could be true?
 - (A) Exactly one department is assigned to the middle floor.
 - (B) Exactly four departments are assigned to the middle floor.
 - (C) Exactly two departments are assigned to the bottom floor.
 - (D) Exactly three departments are assigned to the bottom floor.
 - (E) Exactly four departments are assigned to the bottom floor.
5. If probate is assigned to the middle floor along with exactly two other departments, then which one of the following must be true?
 - (A) Family law is assigned to the floor immediately above health law.
 - (B) Family law is assigned to the floor immediately below labor law.
 - (C) Family law is assigned to the same floor as securities.
 - (D) Probate is assigned to the same floor as health law.
 - (E) Probate is assigned to the same floor as injury law.

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Questions 6–10

A museum curator is arranging seven photographs—*Fence*, *Gardenias*, *Hibiscus*, *Irises*, *Katydid*, *Lotus*, and *Magnolia*—on a gallery wall in accordance with the photographer's requirements. The photographs are to be hung along the wall in a row, in seven positions sequentially numbered from first to seventh. The photographer's requirements are as follows:

Gardenias must be immediately before *Katydid*.

Hibiscus must be somewhere before *Katydid* but cannot be the first photograph.

Irises and *Lotus* must be next to one another.

Magnolia must be one of the first three photographs.

Fence must be either first or seventh.

6. Which one of the following could be the positions, from first to seventh, in which the photographs are hung?
 - (A) *Fence*, *Hibiscus*, *Gardenias*, *Magnolia*, *Katydid*, *Irises*, *Lotus*
 - (B) *Hibiscus*, *Magnolia*, *Gardenias*, *Katydid*, *Irises*, *Lotus*, *Fence*
 - (C) *Irises*, *Lotus*, *Magnolia*, *Hibiscus*, *Gardenias*, *Katydid*, *Fence*
 - (D) *Lotus*, *Magnolia*, *Irises*, *Hibiscus*, *Gardenias*, *Katydid*, *Fence*
 - (E) *Magnolia*, *Fence*, *Hibiscus*, *Gardenias*, *Katydid*, *Lotus*, *Irises*
7. If *Irises* is immediately before *Gardenias*, which one of the following could be true?
 - (A) *Gardenias* is fourth.
 - (B) *Hibiscus* is fourth.
 - (C) *Irises* is third.
 - (D) *Lotus* is second.
 - (E) *Magnolia* is third.
8. Where each photograph is hung is fully determined if which one of the following is true?
 - (A) *Gardenias* is fourth.
 - (B) *Hibiscus* is second.
 - (C) *Irises* is second.
 - (D) *Lotus* is first.
 - (E) *Magnolia* is third.
9. If *Magnolia* is second, which one of the following CANNOT be true?
 - (A) *Hibiscus* is third.
 - (B) *Hibiscus* is fourth.
 - (C) *Hibiscus* is fifth.
 - (D) *Gardenias* is fourth.
 - (E) *Gardenias* is sixth.
10. Which one of the following, if substituted for the condition that *Hibiscus* must be hung somewhere before *Katydid* but cannot be the first photograph, would have the same effect in determining the arrangement of the photographs?
 - (A) If *Fence* is seventh, *Hibiscus* is second.
 - (B) *Gardenias* is somewhere after *Hibiscus*, and either *Fence* or *Magnolia* is first.
 - (C) *Hibiscus* must be somewhere between the first and sixth photographs.
 - (D) Unless *Hibiscus* is second, it must be somewhere between *Magnolia* and *Gardenias*.
 - (E) *Katydid* is somewhere after *Hibiscus*, which must be somewhere after *Fence*.

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Questions 11–16

Alicia will take exactly four courses this semester. She must choose from the following seven courses—Geography, Japanese, Macroeconomics, Psychology, Russian, Statistics (which is offered twice, once each on Tuesdays at 9 A.M. and 3 P.M.), and World History. No one is allowed to take any course more than once per semester. Because of university requirements and time conflicts, the following restrictions apply to Alicia's choices:

She must take Japanese if she does not take Russian.

She cannot take Japanese if she takes

Macroeconomics.

She cannot take World History if she takes Statistics at 9 A.M.

She must take Statistics at 9 A.M. if she takes Psychology.

She must take either Geography or World History but cannot take both.

11. Which one of the following could be the list of the four courses Alicia takes?
- (A) Geography, Japanese, Psychology, Russian
 - (B) Geography, Macroeconomics, Psychology, Statistics
 - (C) Geography, Japanese, Macroeconomics, Russian
 - (D) Geography, Psychology, Russian, Statistics
 - (E) Macroeconomics, Psychology, Russian, Statistics
12. Which one of the following could be an accurate list of three of the courses Alicia takes?
- (A) Geography, Statistics, World History
 - (B) Japanese, Macroeconomics, Statistics
 - (C) Japanese, Psychology, World History
 - (D) Psychology, Russian, World History
 - (E) Russian, Statistics, World History
13. Which courses Alicia takes is fully determined if she takes Russian and which one of the following?
- (A) World History
 - (B) Statistics
 - (C) Psychology
 - (D) Macroeconomics
 - (E) Japanese
14. Alicia could take Statistics at either of the available times if she takes which one of the following pairs of courses?
- (A) Geography and Japanese
 - (B) Geography and Psychology
 - (C) Japanese and World History
 - (D) Psychology and Russian
 - (E) Russian and World History
15. If Alicia takes Statistics at 3 P.M. and Geography, then which one of the following courses must she also take?
- (A) Japanese
 - (B) Macroeconomics
 - (C) Psychology
 - (D) Russian
 - (E) World History
16. Suppose that Alicia must take Statistics if she takes Psychology, but rather than being restricted to taking Statistics at 9 A.M. she can take it at either 9 A.M. or at 3 P.M. If all the other restrictions remain the same, then which one of the following could be the list of the four courses Alicia takes?
- (A) Psychology, Russian, Statistics, World History
 - (B) Macroeconomics, Psychology, Statistics, World History
 - (C) Macroeconomics, Psychology, Russian, World History
 - (D) Geography, Psychology, Russian, World History
 - (E) Geography, Macroeconomics, Russian, World History

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Questions 17–23

An organization will hold its first six annual meetings in exactly six cities—Los Angeles, Montreal, New York, Toronto, Vancouver, and Washington—using each city only once. The following conditions govern the order in which the cities are used:

Los Angeles must be used in some year after the year in which Toronto is used.

Vancouver must be used either immediately before or immediately after Washington.

The meeting in Toronto must be separated from the meeting in Montreal by meetings in exactly two other cities.

The meeting in Vancouver must be separated from the meeting in Los Angeles by meetings in exactly two other cities.

17. Which one of the following lists the cities in an order in which they could be used for the meetings, from the first year through the sixth?
 - (A) Toronto, Vancouver, Washington, Montreal, Los Angeles, New York
 - (B) Vancouver, Washington, Montreal, Los Angeles, New York, Toronto
 - (C) Vancouver, Washington, Toronto, New York, Los Angeles, Montreal
 - (D) Washington, Montreal, Vancouver, New York, Toronto, Los Angeles
 - (E) Washington, Vancouver, New York, Toronto, Los Angeles, Montreal
18. Which one of the following must be true?
 - (A) Toronto is used in the first year.
 - (B) Montreal is used in the fourth year.
 - (C) Toronto is used at some time before Montreal is used.
 - (D) New York is used either immediately before or immediately after Vancouver.
 - (E) The meeting in New York is separated from the meeting in Washington by meetings in exactly two other cities.
19. There is exactly one possible order in which the cities are used if which one of the following is true?
 - (A) Los Angeles is used in the fifth year.
 - (B) Montreal is used in the sixth year.
 - (C) New York is used in the fifth year.
 - (D) Vancouver is used in the first year.
 - (E) Washington is used in the second year.
20. Which one of the following is a complete and accurate list of the years in which Washington could be used?
 - (A) 1, 3, 5
 - (B) 2, 3, 4, 5
 - (C) 2, 3, 4, 6
 - (D) 1, 2, 4, 6
 - (E) 1, 2, 3, 4, 5, 6
21. If Montreal is used in the first year, which one of the following CANNOT be true?
 - (A) Washington is used in the third year.
 - (B) Vancouver is used in the third year.
 - (C) Toronto is used in the fourth year.
 - (D) New York is used in the fifth year.
 - (E) Los Angeles is used in the third year.
22. Which one of the following could be true?
 - (A) Los Angeles is used in the first year.
 - (B) New York is used in the second year.
 - (C) Montreal is used in the third year.
 - (D) Vancouver is used in the fourth year.
 - (E) Toronto is used in the sixth year.
23. Which one of the following must be false?
 - (A) Los Angeles is used either immediately before or immediately after New York.
 - (B) Los Angeles is used either immediately before or immediately after Washington.
 - (C) New York is used either immediately before or immediately after Toronto.
 - (D) Toronto is used either immediately before or immediately after Vancouver.
 - (E) Toronto is used either immediately before or immediately after Washington.

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.