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

This morning, a bakery makes exactly one delivery, consisting of exactly six loaves of bread. Each of the loaves is exactly one of three kinds: oatmeal, rye, or wheat, and each is either sliced or unsliced. The loaves that the bakery delivers this morning must be consistent with the following:

There are at least two kinds of loaves.
There are no more than three rye loaves.
There is no unsliced wheat loaf.
There is at least one unsliced oatmeal loaf.
If two or more of the loaves are unsliced, then at least one of the unsliced loaves is rye.

1. Which one of the following could be a complete and accurate list of the loaves that the bakery delivers?

(A) six unsliced oatmeal loaves
(B) five unsliced oatmeal loaves, one sliced rye loaf
(C) five unsliced oatmeal loaves, one unsliced wheat loaf
(D) four unsliced oatmeal loaves, two unsliced rye loaves
(E) four unsliced oatmeal loaves, two sliced wheat loaves

2. Each of the following could be a complete and accurate list of the unsliced loaves that the bakery delivers EXCEPT:

(A) three oatmeal loaves
(B) three oatmeal loaves, one rye loaf
(C) two oatmeal loaves, two rye loaves
(D) two oatmeal loaves, three rye loaves
(E) one oatmeal loaf, one rye loaf

3. Which one of the following statements CANNOT be true?

(A) The only unsliced loaves are oatmeal loaves.
(B) The only sliced loaves are rye loaves.
(C) The only unsliced loaves are rye loaves.
(D) The number of sliced loaves is exactly one greater than the number of sliced oatmeal loaves.
(E) The number of unsliced loaves is exactly one greater than the number of unsliced oatmeal loaves.

4. Which one of the following statements must be true?

(A) At least one of the loaves is rye.
(B) At least one of the loaves is wheat.
(C) At least one of the loaves is sliced.
(D) No more than four oatmeal loaves are sliced.
(E) No more than four wheat loaves are sliced.

5. If the bakery delivers exactly four wheat loaves, then the bakery could also deliver

(A) one sliced rye loaf and one unsliced rye loaf
(B) one sliced oatmeal loaf and one unsliced oatmeal loaf
(C) two unsliced rye loaves
(D) two unsliced oatmeal loaves
(E) two sliced oatmeal loaves

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Questions 6–10

The six messages on an answering machine were each left by one of Fleure, Greta, Hildy, Liam, Pasquale, or Theodore, consistent with the following:

At most one person left more than one message.
No person left more than three messages.
If the first message is Hildy's, the last is Pasquale's.
If Greta left any message, Fleure and Pasquale did also.
If Fleure left any message, Pasquale and Theodore did also, all of Pasquale's preceding any of Theodore's.
If Pasquale left any message, Hildy and Liam did also, all of Hildy's preceding any of Liam's.

6. Which one of the following could be a complete and accurate list of the messages left on the answering machine, from first to last?

(A) Fleure's, Pasquale's, Theodore's, Hildy's, Pasquale's, Liam's
(B) Greta's, Pasquale's, Theodore's, Theodore's, Hildy's, Liam's
(C) Hildy's, Hildy's, Hildy's, Liam's, Pasquale's, Theodore's
(D) Pasquale's, Hildy's, Fleure's, Liam's, Theodore's, Theodore's
(E) Pasquale's, Hildy's, Theodore's, Hildy's, Liam's, Liam's

7. The first and last messages on the answering machine could be the first and second messages left by which one of the following?

(A) Fleure
(B) Hildy
(C) Liam
(D) Pasquale
(E) Theodore

8. If Greta left the fifth message, then which one of the following messages CANNOT have been left by Theodore?

(A) the first message
(B) the second message
(C) the third message
(D) the fourth message
(E) the sixth message

9. Each of the following must be true EXCEPT:

(A) Liam left at least one message.
(B) Theodore left at least one message.
(C) Hildy left at least one message.
(D) Exactly one person left at least two messages.
(E) At least four people left messages.

10. If the only message Pasquale left is the fifth message, then which one of the following could be true?

(A) Hildy left the first message.
(B) Theodore left exactly two messages.
(C) Liam left exactly two messages.
(D) Liam left the second message.
(E) Fleure left the third and fourth messages.

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Questions 11–16

Exactly five cars—Frank's, Marquitta's, Orlando's, Taishah's, and Vinquetta's—are washed, each exactly once. The cars are washed one at a time, with each receiving exactly one kind of wash: regular, super, or premium. The following conditions must apply:

The first car washed does not receive a super wash, though at least one car does.
Exactly one car receives a premium wash.
The second and third cars washed receive the same kind of wash as each other.
Neither Orlando's nor Taishah's is washed before Vinquetta's.
Marquitta's is washed before Frank's, but after Orlando's.
Marquitta's and the car washed immediately before Marquitta's receive regular washes.

11. Which one of the following could be an accurate list of the cars in the order in which they are washed, matched with type of wash received?

(A) Orlando's: premium; Vinquetta's: regular; Taishah's: regular; Marquitta's: regular; Frank's: super
(B) Vinquetta's: premium; Orlando's: regular; Taishah's: regular; Marquitta's: regular; Frank's: super
(C) Vinquetta's: regular; Marquitta's: regular; Taishah's: regular; Orlando's: super; Frank's: super
(D) Vinquetta's: super; Orlando's: regular; Marquitta's: regular; Frank's: regular; Taishah's: super
(E) Vinquetta's: premium; Orlando's: regular; Marquitta's: regular; Frank's: regular; Taishah's: regular

12. If Vinquetta's car does not receive a premium wash, which one of the following must be true?

(A) Orlando's and Vinquetta's cars receive the same kind of wash as each other.
(B) Marquitta's and Taishah's cars receive the same kind of wash as each other.
(C) The fourth car washed receives a premium wash.
(D) Orlando's car is washed third.
(E) Marquitta's car is washed fourth.

13. If the last two cars washed receive the same kind of wash as each other, then which one of the following could be true?

(A) Orlando's car is washed third.
(B) Taishah's car is washed fifth.
(C) Taishah's car is washed before Marquitta's car.
(D) Vinquetta's car receives a regular wash.
(E) Exactly one car receives a super wash.

14. Which one of the following must be true?

(A) Vinquetta's car receives a premium wash.
(B) Exactly two cars receive a super wash.
(C) The fifth car washed receives a super wash.
(D) The fourth car washed receives a super wash.
(E) The second car washed receives a regular wash.

15. Which one of the following is a complete and accurate list of the cars that must receive a regular wash?

(A) Frank's, Marquitta's
(B) Marquitta's, Orlando's
(C) Marquitta's, Orlando's, Taishah's
(D) Marquitta's, Taishah's
(E) Marquitta's, Vinquetta's

16. Suppose that in addition to the original five cars Jabrohn's car is also washed. If all the other conditions hold as given, which one of the following CANNOT be true?

(A) Orlando's car receives a premium wash.
(B) Vinquetta's car receives a super wash.
(C) Four cars receive a regular wash.
(D) Only the second and third cars washed receive a regular wash.
(E) Jabrohn's car is washed after Frank's car.

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Questions 17–23

Exactly seven toy-truck models—F, G, H, J, K, M, and S—are assembled on seven assembly lines, exactly one model to a line. The seven lines are arranged side by side and numbered consecutively 1 through 7. Assignment of models to lines must meet the following conditions:

F is assembled on a lower-numbered line than J.
M is assembled on the line numbered one lower than the line on which G is assembled.
H is assembled on line 1 or else line 7.
S is assembled on line 4.

17. Which one of the following is an acceptable assignment of toy-truck models to lines, on order from line 1 through line 7?

(A) F, J, K, S, H, M, G
(B) F, K, J, S, M, G, H
(C) F, M, K, S, G, J, H
(D) H, K, S, M, G, F, J
(E) H, M, G, S, J, F, K

18. It must be true that the lowest-numbered line on which

(A) F can be assembled is line 2
(B) G can be assembled is line 3
(C) J can be assembled is line 2
(D) K can be assembled is line 3
(E) M can be assembled is line 2

19. If K is assembled on line 5, which one of the following is a pair of models that could be assembled, not necessarily in the order given, on lines whose numbers are consecutive to each other?

(A) G, H
(B) G, J
(C) H, J
(D) J, M
(E) M, S

20. There can be at most how many lines between the line on which F is assembled and the line on which J is assembled?

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

21. If K is assembled on line 2, which one of the following must be true?

(A) F is assembled on a lower-numbered line than S.
(B) H is assembled on a lower-numbered line than G.
(C) J is assembled on a lower-numbered line than H.
(D) M is assembled on a lower-numbered line than J.
(E) S is assembled on a lower-numbered line than J.

22. If G is assembled on the line numbered one less than the line on which F is assembled, then which one of the following must be true?

(A) F is assembled on line 3.
(B) G is assembled on line 5.
(C) H is assembled on line 1.
(D) K is assembled on line 5.
(E) M is assembled on line 6.

23. If M is assembled on line 1, which one of the following could be true?

(A) F is assembled on a line numbered one lower than the line on which H is assembled.
(B) F is assembled on a line numbered one lower than the line on which K is assembled.
(C) G is assembled on a line numbered one lower than the line on which J is assembled.
(D) G is assembled on a line numbered one lower than the line on which K is assembled.
(E) K is assembled on a line numbered one lower than the line on which G is assembled.

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.