SECTION II

Time—35 minutes

23 Questions

<u>Directions:</u> 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

Five performers—Traugott, West, Xavier, Young, and Zinser—are recruited by three talent agencies—Fame Agency, Premier Agency, and Star Agency. Each performer signs with exactly one of the agencies and each agency signs at least one of the performers. The performers' signing with the agencies is in accord with the following:

Xavier signs with Fame Agency.

Xavier and Young do not sign with the same agency as each other.

Zinser signs with the same agency as Young. If Traugott signs with Star Agency, West also signs with Star Agency.

- 1. Which one of the following could be a complete and accurate list of the performers who sign with each agency?
 - (A) Fame Agency: Xavier
 Premier Agency: West
 Star Agency: Traugott, Young, Zinser
 - (B) Fame Agency: Xavier Premier Agency: Traugott, West Star Agency: Young, Zinser
 - (C) Fame Agency: Xavier Premier Agency: Traugott, Young Star Agency: West, Zinser
 - (D) Fame Agency: Young, Zinser Premier Agency: Xavier Star Agency: Traugott, West
 - (E) Fame Agency: Xavier, Young, Zinser Premier Agency: Traugott Star Agency: West
- 2. Which one of the following could be true?
 - (A) West is the only performer who signs with Star Agency.
 - (B) West, Young, and Zinser all sign with Premier Agency.
 - (C) Xavier signs with the same agency as Zinser.
 - (D) Zinser is the only performer who signs with Star Agency.
 - (E) Three of the performers sign with Fame Agency.

- 3. Which one of the following must be true?
 - (A) West and Zinser do not sign with the same agency as each other.
 - (B) Fame Agency signs at most two of the performers.
 - (C) Fame Agency signs the same number of the performers as Star Agency.
 - (D) Traugott signs with the same agency as West.
 - (E) West does not sign with Fame Agency.
- 4. The agency with which each of the performers signs is completely determined if which one of the following is true?
 - (A) Traugott signs with Fame Agency.
 - (B) Traugott signs with Star Agency.
 - (C) West signs with Premier Agency.
 - (D) Xavier signs with Fame Agency.
 - (E) Zinser signs with Premier Agency.
- 5. If Zinser signs with Star Agency, which one of the following must be false?
 - (A) Premier Agency signs exactly one performer.
 - (B) Star Agency signs exactly three of the performers.
 - (C) Traugott signs with Star Agency.
 - (D) West signs with Star Agency.
 - (E) None of the other performers signs with the same agency as Xavier.

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Questions 6-11

A competition is being held to select a design for Yancy College's new student union building. Each of six architects— Green, Jackson, Liu, Mertz, Peete, and Valdez—has submitted exactly one design. There are exactly six designs, and they are presented one at a time to the panel of judges, each design being presented exactly once, consistent with the following conditions:

Mertz's design is presented at some time before Liu's and after Peete's.

Green's design is presented either at some time before Jackson's or at some time after Liu's, but not both. Valdez's design is presented either at some time before Green's or at some time after Peete's, but not both.

- 6. Which one of the following could be the order in which the designs are presented, from first to last?
 - (A) Jackson's, Peete's, Mertz's, Green's, Valdez's, Liu's
 - (B) Peete's, Jackson's, Liu's, Mertz's, Green's, Valdez's
 - (C) Peete's, Mertz's, Jackson's, Liu's, Green's, Valdez's
 - (D) Peete's, Mertz's, Valdez's, Green's, Liu's, Jackson's
 - (E) Valdez's, Liu's, Jackson's, Peete's, Mertz's, Green's
- 7. Mertz's design CANNOT be presented
 - (A) sixth
 - (B) fifth
 - (C) fourth
 - (D) third
 - (E) second
- 8. If Liu's design is presented sixth, then which one of the following must be true?
 - (A) Green's design is presented at some time before Jackson's.
 - (B) Jackson's design is presented at some time before Mertz's.
 - (C) Peete's design is presented at some time before Green's.
 - (D) Peete's design is presented at some time before Valdez's.
 - (E) Valdez's design is presented at some time before Green's.

- If Jackson's design is presented at some time before Mertz's, then each of the following could be true EXCEPT:
 - (A) Jackson's design is presented second.
 - (B) Peete's design is presented third.
 - (C) Peete's design is presented fourth.
 - (D) Jackson's design is presented fifth.
 - (E) Liu's design is presented fifth.
- 10. Which one of the following designs CANNOT be the design presented first?
 - (A) Green's
 - (B) Jackson's
 - (C) Liu's
 - (D) Peete's
 - (E) Valdez's
- 11. Which one of the following could be an accurate partial list of the architects, each matched with his or her design's place in the order in which the designs are presented?
 - (A) first: Mertz; fourth: Liu; fifth: Green
 - (B) second: Green; third: Peete; fourth: Jackson
 - (C) second: Mertz; fifth: Green; sixth: Jackson
 - (D) fourth: Peete; fifth: Liu; sixth: Jackson
 - (E) fourth: Valdez; fifth: Green; sixth: Liu

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Questions 12-17

Detectives investigating a citywide increase in burglaries questioned exactly seven suspects—S, T, V, W, X, Y, and Z—each on a different one of seven consecutive days. Each suspect was questioned exactly once. Any suspect who confessed did so while being questioned. The investigation conformed to the following:

T was questioned on day three.

The suspect questioned on day four did not confess.

S was questioned after W was questioned.

Both X and V were questioned after Z was questioned.

No suspects confessed after W was questioned. Exactly two suspects confessed after T was

- 12. Which one of the following could be true?
 - (A) X was questioned on day one.
 - (B) V was questioned on day two.
 - (C) Z was questioned on day four.
 - (D) W was questioned on day five.
 - (E) S was questioned on day six.
- 13. If Z was the second suspect to confess, then each of the following statements could be true EXCEPT:
 - (A) T confessed.

questioned.

- (B) T did not confess.
- (C) V did not confess.
- (D) X confessed.
- (E) Y did not confess.
- 14. If Y was questioned after V but before X, then which one of the following could be true?
 - (A) V did not confess.
 - (B) Y confessed.
 - (C) X did not confess.
 - (D) X was questioned on day four.
 - (E) Z was questioned on day two.

- 15. Which one of the following suspects must have been questioned before T was questioned?
 - (A) V
 - (B) W
 - (C) X
 - (D) Y
 - (E) Z
- 16. If X and Y both confessed, then each of the following could be true EXCEPT:
 - (A) V confessed.
 - (B) X was questioned on day five.
 - (C) Y was questioned on day one.
 - (D) Z was questioned on day one.
 - (E) Z did not confess.
- 17. If neither X nor V confessed, then which one of the following must be true?
 - (A) T confessed.
 - (B) V was questioned on day two.
 - (C) X was questioned on day four.
 - (D) Y confessed.
 - (E) Z did not confess.

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Questions 18–23

The three highest-placing teams in a high school debate tournament are the teams from Fairview, Gillom, and Hilltop high schools. Each team has exactly two members. The individuals on these three teams are Mei, Navarro, O'Rourke, Pavlovich, Sethna, and Tsudama. The following is the case:

Sethna is on the team from Gillom High.
Tsudama is on the second-place team.
Mei and Pavlovich are not on the same team.
Pavlovich's team places higher than Navarro's team.
The team from Gillom High places higher than the team from Hilltop High.

- 18. Which one of the following could be an accurate list of the members of each of the three highest-placing teams?
 - (A) first place: Mei and O'Rourke second place: Pavlovich and Sethna third place: Navarro and Tsudama
 - (B) first place: Mei and Pavlovich second place: Sethna and Tsudama third place: Navarro and O'Rourke
 - (C) first place: Navarro and Sethna second place: Pavlovich and Tsudama third place: Mei and O'Rourke
 - (D) first place: O'Rourke and Pavlovich second place: Navarro and Tsudama third place: Mei and Sethna
 - (E) first place: Pavlovich and Sethna second place: O'Rourke and Tsudama third place: Mei and Navarro
- 19. If Pavlovich is on the team from Hilltop High, then which one of the following could be true?
 - (A) O'Rourke is on the first-place team.
 - (B) Pavlovich is on the first-place team.
 - (C) Mei is on the second-place team.
 - (D) Navarro is on the second-place team.
 - (E) Sethna is on the second-place team.

- 20. If O'Rourke is on the second-place team, then which one of the following could be true?
 - (A) Mei is on the team from Gillom High.
 - (B) Navarro is on the team from Fairview High.
 - (C) O'Rourke is on the team from Gillom High.
 - (D) Pavlovich is on the team from Hilltop High.
 - (E) Tsudama is on the team from Gillom High.
- 21. If Pavlovich and Tsudama are teammates, then for how many of the individuals can it be exactly determined where his or her team places?
 - (A) two
 - (B) three
 - (C) four
 - (D) five
 - (E) six
- 22. If Mei is on a team that places higher than the Hilltop team, then which one of the following could be true?
 - (A) The Fairview team places first.
 - (B) The Gillom team places second.
 - (C) Navarro is on the second-place team.
 - (D) O'Rourke is on the first-place team.
 - (E) Pavlovich is on the first-place team.
- 23. Sethna's teammate could be any one of the following EXCEPT:
 - (A) Mei
 - (B) Navarro
 - (C) O'Rourke
 - (D) Pavlovich
 - (E) Tsudama

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.