Game 13 – Retirement Plans

A magazine will rank exactly seven retirement plans—Q, R, S, W, X, Y and Z—based on their annual yield. The ranking of the retirement plans is consistent with the following conditions:

W is ranked either first or second.

O is not ranked last.

If S is not ranked higher than Y, then Y is ranked lower than R.

Z is ranked after W but before Q.

- 1. Which one of the following could be a complete and accurate ranking of the retirement plans, from highest yield to lowest?
- A. W, S, Z, R, X, Y, Q
- B. W, Z, Y, R, Q, S, X
- C. S, Y, W, Z, X, Q, R
- D. S, W, Y, R, Z, Q, X
- E. X, W, Z, Q, Y, R, S
- 2. Which one of the following CANNOT be true?
- A. Y is ranked behind both Z and X.
- B. Y is ranked behind both R and X.
- C. Z is ranked behind both S and X.
- D. Y is ranked behind neither S nor R.
- E. Q is ranked ahead of both Y and X.

- 3. If Z is ranked fifth, each of the following could be true EXCEPT
- A. S is ranked first.
- B. W is ranked second.
- C. Y is ranked third.
- D. X is ranked fourth.
- E. R is ranked sixth.
- 4. If both Y and X are ranked lower than S but higher than Z, then which one of the following must be true?
- A. S is first.
- B. W is second.
- C. Q is fourth.
- D. Z is sixth.
- E. R is seventh.
- 5. What is the lowest that Y can be ranked?
- A. third
- B. fourth
- C. fifth
- D. sixth
- E. seventh
- 6. The ranking of each of the plans can be completely determined if which one of the following is true?
- A. X is ranked immediately ahead of Z, which is ranked immediately ahead of Y.
- B. S is ranked immediately ahead of Z, which is ranked immediately ahead of R.
- C. W is ranked immediately ahead of Y, which is ranked immediately ahead of R.
- D. Z is ranked immediately ahead of Q, which is ranked immediately ahead of Y.
- E. R is ranked immediately ahead of Y, which is ranked immediately ahead of Q.

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- 1. D
- 2. D
- 3. E
- 4. E
- 5. E
- 6. C

This is your standard order game, and Question 1 is the standard testing of the rules. However, one of the rules in this game is slightly tricky. Read over the third rule a few more times if you feel you don't understand it—this rule is saying that either S, or R, or both, must be in front of Y, and that if S is not in front of Y, R is. Find a good way to symbolize this. Question 2 is based on this rule—Y must follow at least one of those two letters.

In Question 3, the answer is E because Q must be ranked sixth. Q must follow Z, and it cannot be last. On Question 4, R is the only element that can be last, since S and X are taken up, and everything else must be in front of something. Question 5 is yet again E. Remember, both S and R can be in front of Y under the rules.

On Question 6, C places all the elements because Y must follow S-making S first and W second. This means R is followed by Z, Q, and X. Since Z must be ahead of Q, and since Q cannot be last, there is only one order these elements can go with.

Conditional statements on order games like the third rule here are rare but you sometimes do encounter them. Be ready.