

Technical Reasoning Questions:

There are 6 spaces along a wall, numbered 1-6 from left to right. Five people line up against the wall, each in one space their names are Bobby, Newton, David, Calvin and Geoff. The following are the conditions regarding their positions:

One of the spaces remains empty.

Calvin is not standing in an odd-numbered space.

Geoff's position is the third person from the right.

Newton and Bobby must stand next to one another.

1. In which of the spaces can David not be standing?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

2. Which of the spaces along the wall cannot be left empty?

- A. 2
- B. 3
- C. 4
- D. 5
- E. 6

It is the first day of school, and the class has been divided into groups of 6, in order to get to know each other. Within one group are Alicia, Brian, Chris, Dustin, Emma and Frank. During the time in the group, the children get to know one another and some have come to like certain other members of their group.

Alicia is pleased to discover that she likes everyone in her group.

Brian is liked by everyone in the group, but finds that he doesn't like anyone in return.

Chris only likes two group-mates, one of them is Dustin

Dustin likes three members of the group, though Chris and Frank are not among them.

Emma likes only one group member.

Frank doesn't like Alicia.

3. A "friendship" is a group consisting of two or more students who like each other. How many friendships have formed among the students in this group?

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4

4. How many of the members of this group like at least one other member of the group who does not like him/her in return?

- A. 2
- B. 3
- C. 4

- D. 5
- E. 6

When the goalie has been chosen, the Smalltown Bluebirds hockey team has a starting line-up that is selected from two groups:

*First Group: John, Dexter, Bart, Erwin
Second Group: Leanne, Roger, George, Marlene, Patricia*

When deciding on the players in the line-up, the coach considers the following requirements:

Two players are always chosen from the first group, while three are chosen from the second group.

George will only start if Bart also starts.

Dexter and Bart will not start together.

If George starts, Marlene won't start.

The 4 fastest players are: John, Bart, George and Patricia. 3 of the 4 fastest players will always be chosen.

5. If George is in the starting line-up, who must also start?
- A. Leanne or John
 - B. Dexter or Patricia
 - C. Roger or John
 - D. John or Patricia
 - E. Erwin or Roger

Technical Reasoning Answers:

1) (B)

If Geoffrey is standing in space 4, David can stand in space 1, 3, or 5. If Geoffrey is standing in space 3, David can stand in space 1, 4, or 6. David cannot stand in space 2.

2) (A)

Either Calvin, Bobby or Newton is always standing in space 2.

3) (B)

The only friendship is formed between Alicia and Dustin.

4) (D)

All of the members of the group like Brian, but he doesn't like anyone in return. Since he doesn't like anyone, he is not counted.

5) (D)

One more of the 4 fastest players must be chosen.