Exactly six hikers–Ichabod, Juanita, Keisha, Melvin, Olga and Pang–will each go on exactly one of three hiking trails–Spruce, Tamarack, or Waterfall. The hiking trail that each hiker takes is governed by the following conditions:

Keisha and Olga cannot go on the same hiking trail.

Juanita and Melvin must go on the same hiking trail.

Ichabod goes on a trail with at most one other hiker.

Pang goes on a hiking trail alone.

At most two people can go on the Waterfall trail.

1. Which one of the following could be a complete and accurate list of the hikers who take the Tamarack trail?

A. Juanita, Keisha, Melvin, Pang
B. Ichabod, Juanita, Melvin
C. Juanita, Keisha, Melvin, Olga
D. Juanita, Melvin
E. Juanita, Melvin, Olga

2. If Ichabod goes on the Spruce trail, which one of the following could be true?

A. Olga goes on the Waterfall trail.
B. Juanita goes on the Spruce trail.
C. Keisha goes on the Tamarack trail.
D. Pang goes on the Tamarack trail.
E. Melvin goes on the Spruce trail.

3. If Keisha goes on the same hiking trail as Melvin, which one of the following CANNOT be true?

A. Juanita goes on the Tamarack trail.
B. Olga goes on the Waterfall trail.
C. Melvin goes on the Spruce trail.
D. Keisha goes on the Waterfall trail.
E. Ichabod goes on the Waterfall trail.

4. If Olga goes on the Waterfall trail, which one of the following must be true?

A. Melvin goes on the Tamarack trail.
B. Ichabod goes on the Waterfall trail.
C. Pang goes on the Spruce trail.
D. Juanita goes on the Tamarack trail.
E. Keisha goes on the Spruce trail.

5. How many different groups of hikers could take the waterfall trail?

A. one
B. two
C. three
D. four
E. five

6. If Pang goes on the Spruce trail, which one of the following could be true?

(A) Juanita goes on the Waterfall trail.
(B) Ichabod goes on the Tamarack trail.
(C) Melvin goes on the Waterfall trail.
(D) Keisha goes on the Sprucen trail.
(E) Olga goes on the Waterfall trail.

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

The first question is the typical rule testing inquiry, and four of the choices break a rule (D by way of inference to who is on the other trails). On Question 2, Melvin and Juanita have to be on the Tamarack trail because of the combination Ichabod–Waterfall and Keisha and Olga rules. On Question 3, Keisha, Melvin and Juanita are all together and there is no room for them on the Waterfall trail.

On Question 4, either Olga or Keisha has to be with Ichabod; the other with Melvin and Juanita, and there are only two spots on the Waterfall trail. Question 5 is intuitive and you need to deduce the combinations that work–either Olga or Keisha with Ichabod (two) or Pang alone (three). On Question 6, if Pang is on the Spruce trail, Juanita and Melvin must be on the Tamarack trail together with either Keisha or Olga, since there is no room for both Juanita and Melvin on the Waterfall trail without breaking the Ichabod or Keisha and Olga rules.

This is a good example of a "tight" game where the elements are arranged in such a way that placing one in a certain spot requires others to be placed in specific places because they can't be together, or can't be in a particular place.