NTS GAT General Past Paper

Analytical – Exam No. 01 (PP)

Prepared by: GAT Online Tutor

A subcommittee of the senate's foreign relations committee consists of three republicans Rameez, Saad and Tahir and three democrats Waqas, Yawer and Zaheer. Three of these six senators need to visit Moscow to meet with Russian leaders. The decisions as to which senators will make the trip is subject to the following conditions:

The three senators making the trip cannot be from the same party.

Rameez and Saad cannot both make the trip.

Neither Tahir nor Yawer will make the trip unless the other one does.

Waqas will not make the trip unless Zaheer does.

Solution:

Rep = R, S, T Dem = W, Y, Z 3 out of 6

R1: Not all from same party

R2: $R \neq S$

R3: $T = Y$

R4: W will go with Z only

Questions:

1. Which of the following is a list of three senators who could make the trip together?

   (A) Rameez, Yawer, Zaheer

   (B) Rameez, Tahir, Yawer

   (C) Rameez, Saad, Yawer

   (D) Tahir, Waqas, Yawer

   (E) Waqas, Yawer, Zaheer

Solution:

Apply excluding rule:

R1 Option E is wrong.

R2 Option C is wrong.

R3 Option A is wrong.

R4 Option D is wrong.

So, option B is correct.

2. If Zaheer and Rameez are selected to make the trip, which of the following must be true?

(A) More democrats than republicans make the trip

(B) More republicans than democrats make the trip

(C) Saad makes the trip

(D) Tahir makes the trip

(E) Yawer makes the trip

Solution:

It is stated that Zaheer and Rameez are selected, and we have to select a 3rd member. Saad cannot be selected as R2. As Tahir and Yawer wants go with each other as R3, but there is only one vacancy, so both Tahir and Yawer cannot be selected. Hence, 3rd member will be Waqas. Now we have two democrats (Waqas and Zaheer) and one Republican (Rameez) in the committee. Hence, more democrats than republicans make the trip. So, option A is correct.

3. If the senate decides to send four of these senators, subject to the same conditions, all of the following must be true EXCEPT:

(A) Tahir makes the trip

(B) Yawer makes the trip

(C) Zaheer makes the trip

(D) Rameez or Saad makes the trip

(E) If Waqas makes the trip, then Rameez doesn't make the trip

Solution:

Here, we have to select a committee of four members. We can make the following three possibilities:

P1: Tahir, Yawer, Waqas, Zaheer

P2: Tahir, Yawer, Rameez, Zaheer

P3: Tahir, Yawer, Saad, Zaheer

Option (A) Must be true because Tahir makes the trip in all possibilities.

Option (B) Must be true because Yawer makes the trip in all possibilities.

Option (C) Must be true because Zaheer makes the trip in all possibilities.

Option (D) Can be true because if we select P1, then option D is wrong. On the other hand, if we select P2 or P3, then option D is correct.

Option (E) Must be true because according to P1, if Waqas makes the trip, then Rameez doesn't make the trip.

So, option D is correct.

4. If more republicans than democrats make the trip, which of the following must be among the senators making the trip?

(A) Rameez

(B) Saad

(C) Waqas

(D) Yawer

(E) Zaheer

Solution:

Here, we have to select more republicans, so we can make two possible combinations. Combination 1 (Rameez + Tahir) and combination 2 (Saad + Tahir). Tahir must be selected whichever combination we select. And we also know that T = Y as R3, hence Yawer must be selected. So, option D is correct.

5. If Waqas is selected for the trip, then which of the following member must be selected for the trip?

(A) Rameez

(B) Saad

(C) Zaheer

(D) Yawer

(E) Tahir

Solution:

R4 states that Waqas will go with Zaheer only, hence if Waqas is selected, Zaheer must also be selected. So, option C is correct.

Analytical – Exam No. 02 (PP)

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Three vegetables must be selected for salad from six vegetables i.e., carrot, chili, cucumber, onion, radish and tomato according to the following conditions:

Either carrot or cucumber or both must be selected.

Either chili or radish must be selected.

Neither cucumber nor radish can be selected with chili.

Solution:

Ca Ch Cu O R T (3 out of 6)

R1: $Ca/Cu/(Ca + Cu)$

R2: Ch/R

R3: $Cu \neq Ch, R \neq Ch$

Questions:

1. Which of the following is an acceptable selection of vegetables for salad?

   (A) Carrot, chili and cucumber

   (B) Carrot, cucumber and onion

   (C) Carrot cucumber and radish

   (D) Chili, cucumber and radish

   (E) Chili, onion and radish

Solution:

Apply excluding rule:

R1 Option E is wrong.

R2 Option B is wrong.

R3 Option D and option A are wrong.

So, option C is correct.

2. Which of the following pairs of vegetables CANNOT both be among the vegetables selected?

(A) Carrot and chili

(B) Carrot and onion

(C) Chili and tomato

(D) Onion and tomato

(E) Radish and tomato

Solution:

Apply excluding rule:

R1 Option A and option B are wrong.

R2 Option C and option E are wrong.

So, option D is correct.

3. If cucumber is selected for salad, which of the following must also be among the vegetables selected?

(A) Carrot

(B) Chili

(C) Onion

(D) Radish

(E) Tomato

Solution:

It is stated that cucumber is selected. It means we cannot select chili as R3; so, we have to select radish as R2. Hence, radish must be selected. So, option D is correct.

4. If radish is not selected, which pair of vegetables must be among those selected?

(A) Carrot and chili

(B) Carrot and onion

(C) Carrot and tomato

(D) Chili and onion

(E) Chili and tomato

Solution:

It is stated that radish is not selected. It means chili must be selected as R2; and R1 says that either carrot or cucumber or both must be selected. So, option A is correct.