Assignment 8

Set 1

A group of three objects must be selected according to the following conditions:

i. Either K or S or both must be selected.

ii. Either O or V must be selected, but neither V nor S can be selected with O.

1. Which of the following is an acceptable selection of objects?

(1) K, O and S

(2) K, S and T

(3) K, S and V

(4) O, S and V

2. Which of the following pairs of objects cannot be both among the objects selected?

(1) K and O

(2) K and T

(3) O and W

(4) T and W

3. If S is selected, which of the following must also be among the objects selected?

(1) K

(2) O

(3) T

(4) V

4. If V is not selected, which pair of objects must be among those selected?

(1) K and O

(2) K and T

(3) K and W

(4) O and T

Set 2

A certain city is served by six subway lines, viz. A. B. C, 1, 2 and 3

When it rains or snows, services on A, 2 and 3 are delayed

When the temperature falls below 30 degrees, service is cancelled in either line A or line 3 but not both.

When the temperature rises over 90 degrees, service is cancelled in either line C or line 3 but not both.

When the service on line A is delayed or cancelled, service on line C is delayed.

When service on line 3 is cancelled, service on line B is delayed.

In the questions a subway line being affected means either service getting delayed on it or getting cancelled.

5. On Jan 10th, with the temperature at 15 degree, it snows all day. What is the minimum number of lines on which service will be affected?

(1) 2

(2) 3

(3) 4

(4) 5

6. On Aug 15th with the temperature at 97 degrees, it begins to rain. What is the minimum number of lines on which service will be affected?

(1) 2

(2) 3

(3) 4

(4) 5

7. On which of the following occasions would service on least number of lines be affected?

(1) A snowy day with the temperature at 45 degree

(2) A day with temperature of 25 degrees

(3) A day with temperature of 95 degrees

(4) (2) or (3) both would result in same least number of lines being affected.

Set 3

G, R and L met in a street. Their surnames were A, K and W, not necessarily in the same order. They were wearing a sweater, jacket and a raincoat, again in no particular order. The colours of the garments, in no particular order were blue, brown and grey.

i. Neither R nor W wear the grey sweater

ii. A did not wear the raincoat

iii. L was wearing the jacket

iv. The garment worn by K was not brown

8. Who wore the sweater?

(1) G

(2) R

(3) L

(4) Cannot be determined

9. K was the surname of the person wearing

(1) sweater

(2) jacket

(3) raincoat

(4) Cannot be determined

10. L‘s surname was

(1) A

(2) K

(3) W

(4) Cannot be determined

11. The jacket was

(1) grey

(2) brown

(3) blue

(4) Cannot be determined

Set 4

Taj hotels are authorized caterers for Indian Airlines fleet. The hotel manager is responsible for preparing lunch and dinner menu for IA passengers. In any lunch, there is a fixed menu of some dry and some non dry dishes. Each lunch contains exactly 2 dry dishes out of X, Y, Z and exactly 3 non dry dishes selected out of P, Q, R, S, and T. Also:

Y cannot be in the same lunch as T

P cannot be in the same lunch as S

Q cannot be in the same lunch as T

12. If Y is included in a lunch pack, which of the following is a dish that must be included?

(1) X

(2) P

(3) Q

(4) S

13. If Z is not included, which of the following dishes cannot be included?

(1) P

(2) Q

(3) S

(4) T

14. Which of the following dishes must be included in each of the lunch packs?

(1) X

(2) Z

(3) P

(4) R

15. If T is included, then that pack must also include

(1) X and Z

(2) Y and Z

(3) P and R

(4) R and S

Set 5

A. B, C and D are four football teams taking part in a tournament. Each team is required to play against all the other teams exactly once. The matches will be played on the grounds P, Q, R and S on the basis of the following conditions:

Team A can play its matches cither on ground P or R and on no other ground

Team B can play its matches on ground P or Q and on no other grounds.

Team C can play its matches on all grounds except P

All grounds must host at least one match

Grounds P and Q can host matches only on Sunday and grounds R and S can host matches only on Saturday

16. On which of the following grounds, will the match between B and C be played?

(1) P

(2) Q

(3) R

(4) S

17. Which of the following set of teams can play the match on either of the grounds P or Q?

(1) B and C

(2) B and D

(3) A and B

(4) A and C

18. What will be the total number of matches played in the tournament?

(1) 3

(2) 4

(3) 5

(4) 6

19. Which one of the following set of teams must play the matches on a Sunday?

(1) C and D

(2) A and B

(3) A and D

(4) A and C