

Mock Test 5

Logical Reasoning & Data Interpretation LRDI Set-5

Question 1 to 4

Answer the questions on the basis of the information given below.

Each of five persons—**Amit, Karan, Manan, Gaurav and Lalit**—lives in a house of a different colour among **Red, Blue, Yellow, Green and Brown**. Each person works in a different company among **Alpha, Beta, Omega, Delta and Epsilon**. **A, B, C and D** were four common friends of the above five persons. Each of these four friends was asked to separately list the five persons in the order of their individual preference. The following tables provide the orders of preference that A, B, C and D gave:

| A |
|------------------------------------------|
| The person who lives in the Yellow house |
| The person who works in Beta |
| Karan |
| Lalit |
| The person who lives in the Brown house |

| B |
|----------------------------------------|
| The person who lives in the Red house |
| The person who works in Delta |
| Karan |
| Manan |
| The person who lives in the Blue house |

| C |
|-----------------------------------------|
| The person who lives in the Brown house |
| The person who works in Epsilon |
| The person who works in Alpha |
| Manan |
| The person who lives in the Red house |

| D |
|------------------------------------------|
| The person who lives in the Green house |
| The person who works in Alpha |
| Amit |
| The person who lives in the Yellow house |
| The person who works in Delta |

(Assume tables were provided with the actual test)

Question 1/20

Who lives in the Red house?

- (a) Amit
- (b) Lalit
- (c) Gaurav
- (d) Manan

Question 2/20

In which company does the person living in the Yellow house work?

- (a) Epsilon
- (b) Omega

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- (c) Delta
- (d) Cannot be determined

Question 3/20

What is the colour of the house in which Gaurav lives?

- (a) Blue
- (b) Yellow
- (c) Brown
- (d) Red

Question 4/20

In which company does Lalit work?

- (a) Alpha
- (b) Delta
- (c) Epsilon
- (d) Omega

Question 5 to 8

Answer the questions on the basis of the information given below.

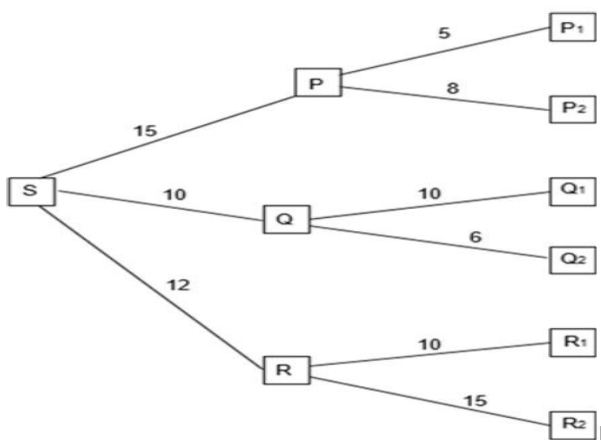
The following diagram gives the network used for **water supply in an area**.

S is the source which supplies water equally into the pipelines connecting **S** with substations **P, Q and R**.

At the substations **P, Q and R**, water is purified and evenly distributed in the pipelines connecting the substations with the respective ministations – **P1, P2, Q1, Q2, R1 and R2** – as shown.

The values given alongside each pipeline represent the **length (in km)** of the pipeline.

For water flowing between a substation and a ministration, **2% of the water** supplied from the substation to that ministration is lost for every km it travels.



For the water flowing between the source and any substation, the loss of water is only **1%** of the water supplied from the source to that substation for every km it travels.

Question 5/20

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If the minimum requirement of water at any of the ministations is **340 kilolitres**, then what must be the **approximate total quantity (in kilolitres)** of water supplied from S, given that the requirements at all the substations were met?

- (a) 2737
 - (b) 3000
 - (c) 3720
 - (d) None of the above
-

Question 6/20

If the quantity of water reaching ministration Q1 is **180 kilolitres**, then what is the quantity (in kilolitres) of water supplied from substation R to ministration R2?

- (a) 450
 - (b) 225
 - (c) 220
 - (d) 154
-

Question 7/20

What is the ratio of the quantity of water reaching substation P and that reaching ministration Q2?

- (a) 425 : 198
 - (b) 7 : 2
 - (c) 227 : 85
 - (d) 850 : 443
-

Question 8/20

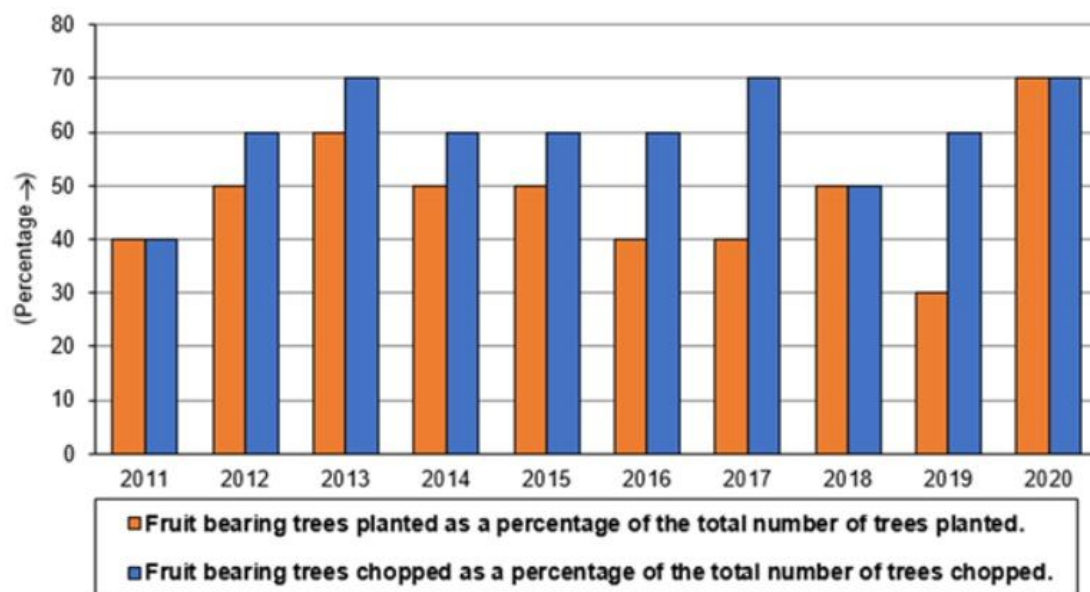
If the quantity of water reaching ministration P1 was **306 kilolitres**, then what was the total quantity (in kilolitres) of water supplied from S?

- (a) 2500
 - (b) 2400
 - (c) 2100
 - (d) 2160
-

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Question 9 to 12

The bar graph given below, gives information about the planting and chopping of fruit bearing trees, over a period of ten years.



For the given period,

1. the total number of trees planted in a year increased over that of the previous year in every alternate year starting from 2012 and in the remaining years it decreased over that of the previous year.
2. the total number of trees chopped in a year increased over that of the previous year for every year.

A dataset provides information about **the number of fruit bearing trees planted and chopped** in a certain region from 2011 to 2020. Use this information to answer the following questions.

Question 9/20

What is the **minimum number of years** in the given period in which the number of fruit bearing trees that are planted increased over that of the previous year?

Question 10/20

If the total number of trees chopped **increased by 10% every year** from 2011 to 2015 and in 2013 the number of fruit bearing trees planted is **equal** to the number of fruit bearing trees chopped, then in at least how many years from 2011 to 2015 was the number of fruit bearing trees chopped **less than** the number of fruit bearing trees planted?

- (a) 1
- (b) 2
- (c) 3
- (d) 0

Question 11/20

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What is the **maximum number of years** from 2012 to 2020 in which the number of fruit bearing trees that are chopped can be equal to that of the previous year?

Question 12/20

The percentage change in the total number of trees planted with respect to the previous year is **same every year** from 2012 to 2020, then the number of fruit bearing trees planted in the year 2014 can be **equal to that of the year**:

- (a) 2012
 - (b) 2016
 - (c) 2020
 - (d) Cannot be determined
-

Question 13 to 16

Answer the questions on the basis of the information given below.

There are **25 unit cubes** (of dimensions $1 \times 1 \times 1$) in each of the five colours: **Red, Blue, Brown, Yellow and Green** (each unit cube being painted on all faces in the respective colour).

All these **125 unit cubes** are arranged into a large $5 \times 5 \times 5$ cube on a table.

- All the unit cubes in the bottom-most horizontal layer of the large cube are **Red**
- All the cubes in the layer above the bottom-most layer are **Green**
- The layer above that is **Blue**
- The next layer is **Yellow**
- The topmost layer is **Brown**

After forming the $5 \times 5 \times 5$ cube, all the **six faces** of the large cube are **painted over in Black**.

Question 13/20

How many cubes with **at least one face painted Black** also have **exactly one face touching the face of a cube that is painted Brown on at least one face**?

Question 14/20

How many cubes with **exactly two faces painted Black** also have **exactly one face touching the face of a cube which is painted Yellow on at least one of its faces**?

Question 15/20

How many cubes have **at least one face touching the face of another cube which is painted Green on all its faces**?

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Question 16/20

How many cubes have **at least two faces painted Black** and **at least one face painted Red**?

Question 17 to 20

Answer the questions on the basis of the information given below.

In the **Football World Cup**, England played against Brazil in the finals. The match lasted for exactly **93 minutes**.

- England was leading for a total of **35 minutes**
- Brazil was leading for **22 minutes**
- Neither team was leading for **36 minutes**
- A total of **six goals** were scored during the match

The goals were scored at the following times:

- **1st goal** at the end of the **21st minute**
 - **2nd goal** at the end of the **41st minute**
 - **3rd goal** at the end of the **46th minute**
 - **4th goal** at the end of the **56th minute**
 - **5th goal** at the end of the **71st minute**
 - **6th goal** at the end of the **86th minute**
-

Question 17/20

What is the **maximum number of goals scored consecutively** by any one team?

- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5
-

Question 18/20

Which of the following **could have been the score at some point** during the match?

- (a) Brazil: 1 – England: 0
 - (b) Brazil: 3 – England: 2
 - (c) Brazil: 2 – England: 1
 - (d) Brazil: 3 – England: 1
-

Question 19/20

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If the six goals were scored by the players **Ronaldo, Neymar, Gerrard, Lahm, Cech and Belluschi**, in that order, who among the following **scored a goal for Brazil**?

- (a) Belluschi
 - (b) Ronaldo
 - (c) Neymar
 - (d) Cannot be determined
-

Question 20/20

What was the **score at the end of the 87th minute** of the match?

- (a) Brazil: 3 – England: 3
- (b) Brazil: 4 – England: 2
- (c) Brazil: 2 – England: 4
- (d) Brazil: 1 – England: 5

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Answer Key

1. (a) Amit
2. (b) Omega
3. (c) Brown
4. (a) Alpha
5. (d) None of the above
6. (c) 220
7. (a) 425 : 198
8. (b) 2400
9. 3
10. (a) 1
11. 2
12. (c) 2020
13. 16
14. 16
15. 39
16. 16
17. (c) 4
18. (b) Brazil: 3 – England: 2
19. (a) Belluschi
20. (b) Brazil: 4 – England: 2