Mock Test 4

Logical Reasoning & Data Interpretation LRDI Set-4

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

Five people – Dinesh, Lalit, Mani, Raghu and Tarak – wrote a test, which comprised five sections – QA, LR, DI, VA and RC.
The score obtained by any student in any section can only be 5, 10 or 15 marks.
Further, it is also known that in each section, each of the three possible scores was obtained by at least one student, and the total score obtained by each student across the five sections is distinct.
In each section, the score of Tarak was the same as that of exactly one other student and the score of Lalit was also the same as that of exactly one other student. However, in none of the sections was the score of Tarak the same as that of Lalit.
Raghu obtained the highest score among the five students in each of LR and RC, while Mani scored more than Dinesh in QA.
The sum of the scores obtained by the five students in each section are 45, 50, 50, 45 and 55 marks, in no particular order.
Each student obtained 15 marks in at least one section, and no student obtained the same marks as Raghu in any section.
The total score obtained by Tarak is 35.
Both Tarak and Dinesh scored 15 marks in the VA section, while Mani scored 15 marks in exactly two sections.

Question 1/22. In which section was the sum of the scores obtained by the five students the highest?

(a) LR
(b) DI
(c) RC
(d) VA

Question 2/22. What is the total score obtained by Mani across all the five sections?

Question 3/22. What is the difference between the highest total score of any student and the lowest total score of any student across the five sections?

Question 4/22. In how many of the five sections did Lalit score more than Raghu?

(a) 3
(b) 2
(c) 1
(d) 4

Question 5/22. Among the five students, who obtained the highest total score across the five sections?

(a) Raghu
(b) Dinesh

(c) Lalit
(d) Mani

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

In a factory, there are three machines – Machine 1, Machine 2, and Machine 3 – which are used to manufacture four types of automobile parts – Part 1, Part 2, Part 3 and Part 4.
Each type of part is first processed on Machine 1, then moved to Machine 2, and finally to Machine 3, after the processing is finished at each machine.
Each machine processes only one part at a time and can process parts one after the other, without any delay in between. Further, there is no delay involved in moving a part from one machine to the next, subject to availability of the next machine (in case of non-availability, the part is kept aside until the next machine becomes available).
The following table shows the time (in minutes) it takes for each machine to process each of the four types of parts.
Today, exactly one unit of each of the four types of parts are to be manufactured, such that on each machine, Part 1 is to be processed first, followed by Part 2, Part 3 and then Part 4.

Part Type	Time Taken (in mins) by		
	Machine 1	Machine 2	Machine 3
Part 1	15	24	14
Part 2	11	17	21
Part 3	18	21	22
Part 4	21	24	15

Question 6/22. If the machines are started at 10:00 am, what is the earliest time by which the manufacturing of Part 2 can finish?

(a) 11:04 am
(b) 11:17 am
(c) 11:21 am
(d) 11:14 am

Question 7/22. What is the earliest time by which the manufacturing of all the four parts can be finished, if the machines are started at 11:00 am?

(a) 12:44 pm
(b) 12:56 pm
(c) 01:01 pm
(d) 12:34 pm

Question 8/22. What is the minimum time (in minutes) required for Machine 1 to finish processing all the four parts?

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Question 9/22. If all the four parts were manufactured in the least possible time, then what is the time for which Machine 3 would have been idle, after it started processing Part 1?

(a) 8 minutes
(b) 6 minutes
(c) 3 minutes
(d) 5 minutes

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

Each of six children – Anu, Bhanu, Hanu, Manu, Sonu and Tanu – is of a distinct weight, each of which is a multiple of 5 kg.
The following information is known about their weights:
i. The weight of Bhanu is the average of the weights of Sonu and Tanu.
ii. The weight of Anu is 20 kg less than that of Hanu.
iii. The difference between the weights of Manu and Tanu is 20 kg, which is two-thirds the difference between the weights of Sonu and Tanu.
iv. The average of the weight of the heaviest child and that of the lightest child, Tanu, is 50 kg.
v. The weight of any child is greater than 10 kg, and Hanu is not the heaviest of the six.

Question 10/22. What is the difference between the weight of the heaviest child and the weight of Hanu?

(a) 20 kg
(b) 15 kg
(c) 10 kg
(d) 5 kg

Question 11/22. What is the weight (in kg) of the child who weighs the lowest?

Question 12/22. How many children weigh more than Hanu?

(a) 1
(b) 2
(c) 3
(d) Cannot be determined

Question 13/22. What is the sum of the weights (in kg) of the six children?

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

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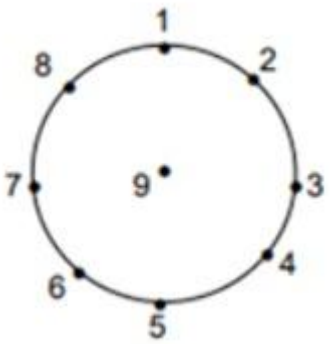
In a circular garden, there are nine trees – A through I, such that there is one tree at the centre and eight trees equally spaced along the circumference of the garden.
The positions of the nine trees (not necessarily in any order) are indicated in a figure. The distances (in meters) between some pairs of trees are:

- (B, G, 125.6)
- (C, A, 62.8)
- (E, F, 40)
- (A, G, 31.4)
- (H, A, 188.4)
- (C, H, 125.6)
- (I, E, 40)
- (F, I, 125.6)
- (I, H, 31.4)

It is also known that:

- A is not nearer to F than it is to H.
- The tree I is located at location 1.
- Distance between any two trees on the circumference is measured along the circumference, either clockwise or anti-clockwise.
- Use π = 3.14 for convenience.



Question 14/22. Which of the following would be true as per the given information?

(i) (A, D, 62.8)
(ii) (A, D, 157)
(iii) (A, D, 125.6)
(iv) (A, D, 94.2)

(a) Either (i) or (ii)
(b) Only (i)
(c) Either (iii) or (iv)
(d) Only (iii)

Question 15/22. Which of the following statements is/are true?

I. C is the third tree from I in the clockwise direction.
II. D is the fifth tree from I in the anti-clockwise direction.

(a) Only I
(b) Only II
(c) Either I or II but not both
(d) Both I and II

Question 16/22. Which of the following is not a set of three trees which form an isosceles triangle?

(a) AHF
(b) IHC
(c) ECD
(d) BAC

Question 17/22. If the nameplates representing the names of the trees are interchanged among the pairs of trees which are diametrically opposite to each other, then among the statements I through V given below, the maximum number of statements which can simultaneously be true is:

I. A is at location 4
II. H is at location 6
III. B is at location 3
IV. D is at location 8
V. C is at location 8

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

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

Rajeev, an MBA student, calculated and plotted the Cumulative Expenses (in USD mn) and Cumulative Revenues (in USD mn) for the four quarters of a particular year, for four different companies.

- Cumulative Expenses/Revenues for any quarter = sum of the expenses/revenues from Q1 to that quarter.
- Each company had positive revenues and expenses in all four quarters.
- The scatter plot shows data points A through P representing these values.

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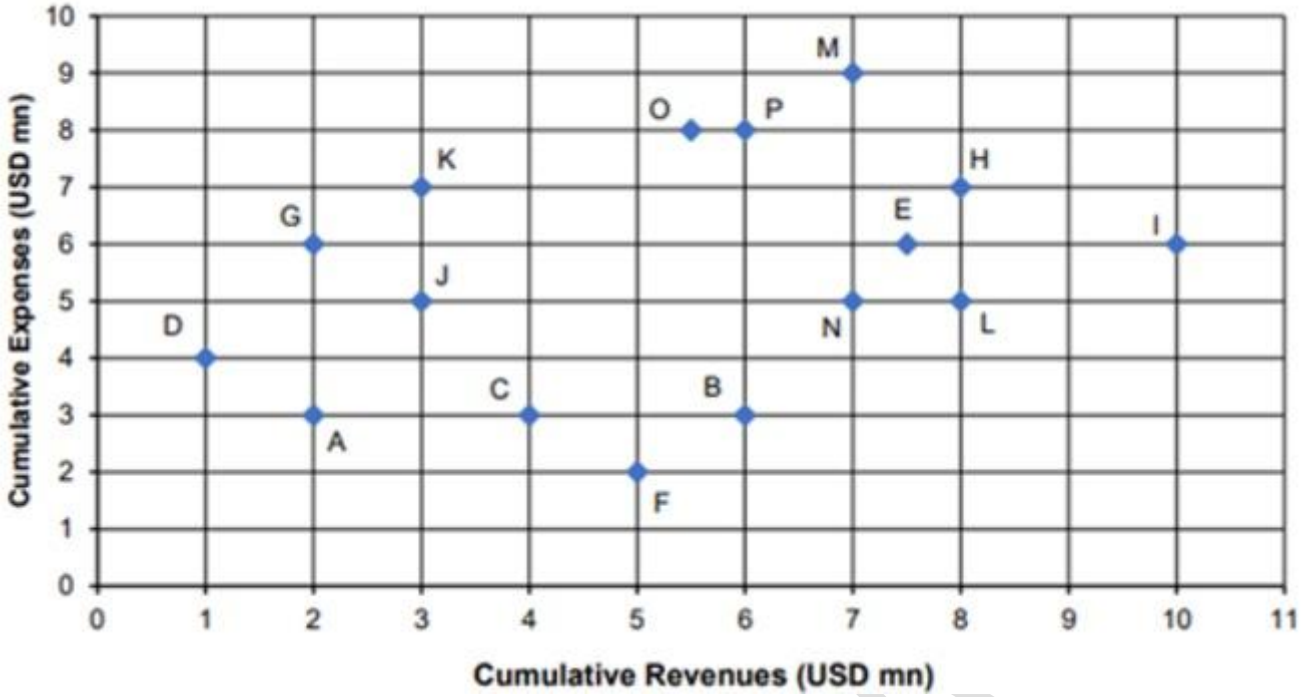

Note:

- **Profit = Revenues – Expenses**
- **Profit Percentage = (Profit⁄Revenues) × 100**

Question 18/22. If the data points A, B, C… P are represented by their numerical equivalents as 1, 2, 3… 16 respectively, enter the numerical equivalents of the data points representing the first four quarters, from first to fourth, in that order, of the company to which the data point **N** corresponds.
(For example, if A, B, C and P represent the quarters, enter your answer as '12316')

Question 19/22. If the company to which the data point **M** corresponds did **not incur a loss in Q3**, what is the profit made in Q4 by the company to which the data point **G** corresponds?

(a) USD 0.5 mn
(b) USD 1 mn
(c) USD 1.5 mn
(d) USD 2 mn

Question 20/22. How many companies incurred a **loss in Q2**?

(a) 3
(b) 2
(c) 1
(d) Cannot be determined

Question 21/22. How many of the four companies made a **profit in Q3**?

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

Question 22/22. For the given year, what is the **profit percentage** of the company to which the data point **A** corresponds?

(a) –28.57%
(b) –33.33%
(c) 12.5%
(d) 40%

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Answer Key

1. **(c) RC**
2. **50**
3. **20**
4. **(a) 3**
5. **(a) Raghu**
6. **(b) 11:17 am**
7. **(c) 01:01 pm**
8. **110**
9. **(d) 5 minutes**
10. **(d) 5 kg**
11. **35**
12. **(a) 1**
13. **305**
14. **(d) Only (iii)**
15. **(c) Either I or II but not both**
16. **(b) IHC**
17. **(d) 3**
18. **31458**
19. **(c) USD 1.5 mn**
20. **(b) 2**
21. **(a) 0**
22. **(a) –28.57%**