

QUANTITATIVE TECHNIQUES

Passage 1

Sambandh Bank's employees' picnic on a river island turned into a disaster as the newly constructed road bridge connecting the island to the riverbank collapsed. Evacuation operations had to be carried out by ferrying the employees from the island across the river and on to the riverbank. One-sixth of the employees were evacuated by villagers in a country boat. Of the remaining, one-fifth were evacuated by fishermen in a trawler. The remaining evacuees were joined by villagers who were helping with the evacuation. Finally, 8 motor boats with 8 people each left the island.

1. If half of the motor boats had one villager each and the other half had 2 each, what was the ratio of villagers to employees in the motor boats?

(a) 1:8	(b) 3:13
(c) 3:16	(d) 2:13

2. How many employees were evacuated in the trawler?

(a) 13	(b) 15
(c) 12	(d) 10

3. If there were 4 villagers in the country boat, and 6 fishermen in the trawler, and if an equal number of people travelled in each trip; i.e. country boat, trawler, and motor boats, how many people travelled in each trip?

(a) 10	(b) 6
(c) 9	(d) 8

4. After they reached the shore, $\frac{1}{3}$ of the employees took a taxi, half of them took a bus and the remainder took the train. The cost of hiring a 4-seater taxi was ₹500, the cost of hiring a bus was ₹5000 and each train ticket was priced at ₹75. The taxis took a maximum of four passengers each. If the total expenditure on the different modes of transport was ₹9,475, how many taxis were hired?

(a) 5	(b) 6
(c) 7	(d) 8

5. The total number of employees in Sambandh Bank is 4.5 times the number that went on the picnic. The Securities department of the bank consists of $\frac{4}{9}$ of the total number of employees. The percentage of Sambandh Bank's employees in the Securities department is:

(a) Between 45% - 50% of the total number of employees in the bank	(b) Between 40% - 45% of the total number of employees in the bank
(c) More than 50% of the total number of employees in the bank	(d) Less than 40% of the total number of employees in the bank

Passage 2

The table below represents the results of 5 randomly selected participants in the ranking round in the women's individual archery event at the 2012 Olympic Games and the number of arrows landing in the 10-ring and inner-10 (X) ring of the target. Each archer entering the competition shot a total of 72 arrows each. Arrows landing in the 10-ring score 10 points. The scores of archers in relation to the inner-10 (X) ring is used for tie-breaking, i.e., to determine the winner when two or more archers have the same overall score. Use the data available to answer the questions that follow.

Archer	1 st Half	2 nd Half	10s	Inner-10 (Xs)
Deepika Kumari	327	335	25	8
Khatuna Lorig	331	338	32	4
Ki Bo-Bae	339	332	31	13
Ksenia Perova	329	330	28	7
Lin Chia-En	338	329	33	8

6. Which players scored the highest and lowest total, that is, the sum of 1st half and 2nd half scores, respectively?
 (a) Khatuna Lorig and Lin Chia-En
 (b) Deepika Kumari and Ki Bo-Bae
 (c) Ki Bo-Bae and Ksenia Perova
 (d) Lin Chia-En and Deepika Kumari
7. How many archers had a higher second-half score than their first-half score?
 (a) 2 (b) 3
 (c) 4 (d) 1
8. What percentage of Deepika Kumari's total score was from arrows landing in the 10-ring?
 (a) 35% (b) 37.8%
 (c) 40.7% (d) 42.6%
9. What is the ratio of the total number of arrows landing in the X ring to the total number of arrows shot?
 (a) 1:9 (b) 3:8
 (c) 5:7 (d) 4:9
10. What percentage of arrows shot by Khatuna Lorig in the 10-ring landed in the X ring?
 (a) 16.5%
 (b) 8.5%
 (c) 22.5%
 (d) 12.5%

Passage 3

Following Table shows number of Trees in 5 different gardens, also number of ripe and unripe fruits. Some value in the table is missing; you have to find the value according to the question.

Garden	Number of trees in each garden	Number of ripe Fruits	Number on unripe fruits	Selling price Per unit (Ripe)	Selling price Per unit (Unripe)
A	104	55	--	5	4
B	120	--	--	7	3.5
C	125	70	--	--	--
D	85	45	--	4.5	2.5
E	92	--	32	5.5	3

Note - Only 1 ripe and 2 unripe fruits are there in each of the tree (value of ripe and unripe fruits is same for all gardens.)

11. Total selling price of ripe and unripe fruits from garden C (after selling all fruits) is ₹1250, while ratio of selling price per unit of ripe to unripe fruits is 4:3. Find the selling price of ripe fruits?
 (a) ₹500 (b) ₹550
 (c) ₹800 (d) ₹750
12. Find the total number of unripe fruits from all the garden together is what % of total number of ripe fruits from all garden together. If given that ratio of trees on which ripe to unripe fruit from garden B is 1:2?
 (a) 68.5% (b) 55.5%
 (c) 71.5% (d) 85.5%
13. Selling price of ripe fruits from D and E together is how much more or less than the total selling price of unripe fruits from garden A?
 (a) 29.5 more (b) 7.5 more
 (c) 7.5 less (d) 11.5 more

14. If total selling price unripe fruits from garden C is ₹660, which is ₹40 less than the selling price of ripe fruit from the same garden. Find out ratio between selling price per unit of ripe to unripe fruit from garden C?
- (a) 2:3
(b) 3:2
(c) 6:7
(d) None of these
15. Which of the following statement is required to find the Total number of ripe fruits from all gardens together?
- I – Ratio of ripe to unripe fruits from B = 7:10
II – Number of unripe fruits from B is 4 more than the thrice the number of unripe fruits from E.
- (a) Only I can give the answer
(b) Both I and II together can give the Answer
(c) Only II can give the answer
(d) Either I or II can give the answer

