Q1. In a class, 85% of the students passed a math test, and 45 students failed. How many students are there in total in the class? (Cognizant)

A. 250

B. 300

C. 350

D. 400

Ans: B

Hint: If 85% passed, then 15% failed. Use this percentage to find the total number of students.

Q2. In a competition, three participants received scores of 1200, 1800, and 2500 respectively. What percentage of the total score did the winner get? (Accenture)

A. 40%

B. 45%

C. 50%

D. 55%

Ans: C

Hint: First, find the total score. Then, identify the winning participant's score and calculate their percentage of the total.

Q3. If the price of petrol is increased by 20%, by how much percent must a car owner reduce its consumption to maintain the same expenditure? (Accenture)

A. 16.67%

B. 18%

C. 20%

D. 22.5%

Ans: A

Hint: Use the formula: Percentage reduction = [Increase percentage/(100+Increasepercentage)]×100.

Q4. The price of 8 shirts is 20% more than the price of 4 trousers. If the price of 2 trousers is Rs. 1000, then what is the price of 8 shirts? (Cognizant)

A. Rs. 2400

B. Rs. 2600

C. Rs. 2800

D. Rs. 3000

Ans: A

Hint: Calculate the price of 4 trousers first, then add 20% to that value.

Q5. Find the single equivalent discount of 10% and 30%. (Accenture)

A. 37%

B. 38%

C. 39%

D. 40%

Ans: A

Hint: Use the formula for successive discounts:

Q6. A bookseller sells a book at a loss of 25%. Had he sold the book for Rs. 75 more, he would have made a profit of 5%. To earn a profit of 15%, what should be the selling price of the book? (Tech Mahindra)

A. Rs. 287.50

B. Rs. 300

C. Rs. 312.50

D. Rs. 337.50

Ans: D

Hint: The difference of Rs. 75 represents the difference between a 25% loss and a 5% profit relative to the cost price (CP). So, 30% of CP = 75.

Q1. What is the remainder when 7^{2023} is divided by 5? (TCS)

A. 1

B. 2

C. 3

D. 4

Ans: C

Hint: Find the cyclicity of the unit digit of powers of 7 and apply it to the exponent.

Q8. What is the unit digit of $(3^{65}\times6^{59}\times7^{71})$? (Infosys)

A. 2

B. 4

C. 6

D. 8

Ans: A

Hint: Find the unit digit of each term individually and then multiply them to find the final unit digit.

Q9. A fort has provisions for a certain number of soldiers for 120 days. If after 30 days 100 soldiers leave, and the food then lasts for 150 days, how many soldiers were originally in the fort? (Accenture)

A. 400

B. 500

C. 600

D. 700

Ans: C

Hint: The remaining food (after 30 days) for the original number of soldiers is equal to the food for the remaining soldiers for 150 days. Let x be the original number of soldiers. So, $x \times (120-30) = (x-100) \times 150$.

Q10. What should be added to each of the numbers 5, 8, 14, 20 so that the resulting numbers should be in proportion? (Cognizant)

A. 1

B. 2

C. 3

D. 4

Ans: D

Hint: Let the number to be added be x. Set up the proportion: $(8+x)/(5+x) = (20+x)/(14+x)$.

Q11. A sum of Rs. 6000 is invested in a simple interest scheme. The rate of interest is 7.5 percent per annum. If Rs. 1800 interest is obtained, then for how many months is the sum invested? (Tech Mahindra)

A. 42 months

B. 45 months

C. 48 months

D. 50 months

Ans: C

Hint: Use the formula $SI = (P \times R \times T)/100$. Remember to convert years to months.

Q12. What amount would a man receive on a principal of Rs. 15,000 after four years at simple interest at the rate of 5 percent per annum? (Accenture)

A. Rs. 17,500

B. Rs. 18,000

C. Rs. 18,500

D. Rs. 19,000

Ans: B

Hint: Calculate the Simple Interest first, then add it to the principal to find the amount.

Q13. A sum of Rs. 1000 is lent in the beginning of a year at a certain rate of interest. After 4 months, a sum of Rs. 500 more is lent but at a rate thrice the former. At the end of the year, Rs. 100 is earned as interest from both the loans. What was the original rate of interest? (TCS)

A. 6%

B. 7.5%

C. 8%

D. 9%

Ans: B

Hint: Calculate interest for the first loan for 1 year, and for the second loan for 8 months at thrice the rate. Sum both interests to 100.

Q14. Two containers X and Y contain milk and water mixed in the ratio 5:2 and 2:1 respectively. The ratio in which these two mixtures be mixed to get a new mixture containing 70% milk is? (TCS)

A. 1:1

B. 2:1

C. 3:2

D. 4:3

Ans: A

Hint: Find the proportion of milk in each container. Use the alligation rule with the target proportion (70%) to find the mixing ratio.

Q15. Find the value of M. (Infosys)

CROSS

+ROADS

DANGER

A. 1

B. 2

C. 3

D. 4

Ans: C

Hint: This is a cryptarithmetic puzzle. Common solutions involve identifying carry-overs and assigning values based on positional arithmetic. One common solution has C=9, R=7, O=3, A=0, D=1, S=2, N=6, G=8, E=5.