Sample Paper – II_QA

1. 8 years hence the sum of A's and B's age will be 70 years. 4 years ago, the ratio between sum of ages of A and B together and C's age was 2 : 1. What is the present age of C?

a) 23 years
b) 27 years
c) 32 years
d) 37 years

Answer option(b)
Let present ages of A, B and C be A years, B years and C years repectively, then (A+8) + (B+8) = 70 ➔ A + B = 54 ➔ C-4 = (A-4+B-4) /2 ➔ 2C – 8 = A+B-8 ➔ C= (A+B)/2 ➔ C= 27 years

2. A, B and C are 3 positive integers such that A is 20% less than C and C is 50% more than B. If sum of A, B and C is 111, then find the value of B

A) 32 B)20 c)30 D) 40

Answer option (c)
Given, C = B + 50% of B = 1.5 B A = C – 20% of C = C – 0.2 C = 0.8 C = 0.8 × 1.5 B = 1.2 B According to question, A + B + C = 111 ⇒ 1.2 B + B + 1.5 B = 111 ⇒ 3.7 B = 111 ⇒ B = 30

3. Marked price of a chair is 140% more than the cost price. If after 50% discount, the selling price is Rs. 1800, find the cost price of the chair.

a) Rs. 1200
b) Rs. 1500
c) Rs. 1720
d) Rs. 2100

Answer option (b)
Let the cost price be Rs. 100x, then Marked price = 100x + 140% of 100x = 100x + 140x = Rs. 240x Selling price = Marked price – discount = 240x – 50% of 240x = 240x – 120x = 120x According to question, 120x = Rs. 1800 ⇒ x = 15

Hence, the cost price = Rs. 100x = 100 × 15 = Rs. 1500

4. 14 years hence ratio of ages of A and B will be 4 : 9. If 4 years ago, the ratio of ages of A and B was 2 : 9, find the present age of B.

a) 56 years
b) 63 years
c) 49 years
d) 42 years

Answer option(c)

Let the age of A and B 14 years hence will be 4x years and 9x years respectively.
4 years ago, age of A = (4x – 18) years
4 years ago, age of B = (9x – 18) years
According to question,

$$\frac{4x-18}{9x-18} = \frac{2}{9}$$

⇒ 36x – 162 = 18x – 36
⇒ 18x = 126
⇒ x = 7
Present age of B = 9x – 14 = 9 × 7 – 14 = 49 years

5. Abhishek sold an article at a profit of 18%. Had he sold the same article at a profit of 22%, he would have earned Rs. 294 more, find the cost price of article.

a) Rs 6480
b) Rs 5620
c) Rs 8440
d) Rs 7350

Answer option (d)

Let the cost price of the article be Rs. 'x'.
ATQ,
1.22x – 1.18x = 294
⇒ 0.04x = 294
⇒ x = 7350

6. In a farm 20% animals are cows, 26% are dogs, 32% are goats and rest are buffaloes. If the number of goats in the farm is 288, then find the number of buffaloes in farm.

a) 184
b) 198
c) 147
d) 254

Answer option (b)

Let total number of animals in the farm be 100x.
So, number of goats = 0.32 × 100x = 32x
According to question,

32x = 288
⇒ x = 9
Number of buffaloes = 100x – (20x + 26x + 32x) = 22x
= 22 × 9 = 198

7. In a class of 45 students, the average weight of entire class is 54 kg. If 15 new students joined the class then the average weight of class increases by 2 kg. What is the total weight of 15 new students?

a) 840 kg
b) 980 kg
c) 1050 kg
d) 930 kg

Answer option (d)

Sum of weight of 45 students = 54 Â 45 = 2430 kg
Sum of weight of 60 students = 60 Â 56 = 3360 kg
Sum of weight of 15 new students = 3360 – 2430 = 930 kg

8. A rice wholesaler sold two-third of his stock at a profit of 15% and remaining at loss of 2%. If there is a profit of Rs. 17640 on overall transaction, what is the cost price of the total stock.

a) Rs. 194000
b) Rs. 170500
c) Rs. 165000
d) Rs. 189000

Answer option (d)

Let the CP of total stock be 300x.
SP of two third of stock = $\frac{2}{3} \times \frac{115}{100} \times 300x$ = 230x
SP of the remaining one third of stock = $\frac{1}{3} \times \frac{98}{100} \times 300x$ = 98x
Total SP = 230x + 98x = 328x
Net profit = 328x – 300x = 28x
Now, 28x = 17640 Ã x = 630
CP of total stock = 300 × 630 = Rs. 189000

9. Two numbers are in the ratio of 9:7. If the larger number is 56 more than one-seventh of the smaller, then what is the sum of the two numbers?

A. 112 B. 130 C. 96 D. 72

Answer option (a)

Two numbers are in the ratio of 9 : 7.
Let larger number = 9x
Smaller number = 7x
It is given that the larger number is 56 more than one-seventh of the smaller

→9× = 7×$\frac{1}{7}$ + 56
→9× = x+56
→8x =56
→X =7

Sum of two numbers = 9x + 7x = 16x 7 = 112

10. If 2/3 of 4/5 of 6/5 of a number is equal to 240, then what is the value of the number?

A. 125 B. 250 C. 375 D. 450

Answer option(c)

Let the number be x.
∴ According to the question

→$\frac{2}{3} \times \frac{4}{5} \times \frac{6}{5} \times X = 240$

→X = 5× 75 =375

11. A person buys 10 articles at rate of Rs. 5 each and 30 articles at the rate of Rs. 10 each. What will be the average price (in Rs.) per article?

a) 8.75
b) 9.25
c) 9.85
d) 8.5

Answer option(a)

Average =$\frac{10\times5+30\times10}{40}$ = $\frac{350}{40}$ => 8.75

12. If 90 is subtracted form 70% of a number, then the result is 120. What is the value of the number?

a) 300
b) 150
c) 450
d) 270

Answer option (a)

Let the number is = N
Then, according to the question,
70%N - 90 = 120
70%N = 210
1 OO%N = (210/70) = 300
Hence, the required number = 300

13. In an examination, in which the full marks were 600, A scored 20% more marks than B; B scored 50%vmore marks than C and D scored 25% more marks than C. If A scored 90% marks, then the marks scored by D is:

A. 375 marks B. 240 marks C. 360 marks D. 225 marks

Answer option (A)
A scored 90% marks or 540 marks (600 × 90%) Marks scored by B = × 100 = 450 Marks scored by C = × 100 = 300 Marks scored by D = 300 + 300 × 25% = 300 + 75 = 375 marks

14. The ratio of Asha's age 4 years ago and Aisha's age after 4 years is 1: 1. Presently, the ratio of their ages is 5: 3. Find the ratio between Asha's age 4 years hence and Aisha's age 4 years ago.

A. 1:3 B. 3:1 C. 4:3 D. 3:4

Answer option ()
Currently, the ratio of their ages is 5:3. Suppose, their ages are: 5x and 3x respectively Asha's age 4 years ago = 5x - 4 Aisha's age after 4 years = 3x + 4 Ratio of Asha's age 4 years ago and Aisha's age after 4 years is 1:1 Therefore, $\frac{5x-4}{3x+4}=\frac{1}{1}$ Asha's age: 5x + 4 Aisha's age: 3x - 4 Putting the value of x, we get: So, ratio will be 3:1

15. 8 years ago, the ratio of the ages of a father and daughter was 4:1, 3 years later, their ages will be in the

ratio 13:6. Find the present age of the daughter?

a. 15 b. 18 c. 13 d. None of these

Answer option(a)
Let their ages be 4x and x respectively. Therefore, (4x+11)/(x+11) = 13/6 24x+66 = 13x+143 11x = 77 x = 7 8 years ago, their ages were 28 and 7 years respectively. Present age of the daughter = 15 years