Sample Paper – I_QA

1. **The sum of three numbers is 170. If the ratio of first to second number is 3 : 4 and that of second to third is 7 : 9, then the second number is?**

a) 68
b) 48
c) 76
d) 56

Answer option (d)
Let the number be A,B,C and D A : B = 3 : 4 B : C = 7 : 9 A : B : C = 21x : 28x :36x A+B+C → 85x =170 So X =2 Second number is 28x → 28×2 = 56

2. **A person's salary has increased from Rs 7200 to Rs 8100. What is the percentage increase in the person's salary?**

a) 25%
b) 16%
c) $12\frac{1}{2}\%$
d) 40%

Answer option(c)
Percentage increase/ decrease = $\frac{increase\ in\ the\ quantity}{original\ quantity} \times 100$ Percentage increase in the salary = $\frac{900}{7200} \times 100 = \frac{100}{8} = 12\frac{1}{2}\%$.

3. **Raman gets 3 marks for each correct sum and loses 2 marks for each wrong sum. He attempts 30 sums and obtains 40 marks. The number of sums solved correctly ?**

a)15
b)20
c)25
d)10

Answer option(b)
Let the number of correct sum be 'K'.

Now according to the question,
K × 3 – (30-K) × 2 = 40
3K-60+2K=40
K =20

4. The average mark obtained by a class of 80 students is 82 . The average marks of half of the students are found to be 125 . The average marks of the remaining students is ?

a)39
b)52
c)79
d)42

Answer option (a)

82= $\frac{125+X}{2}$

X =39

5. Three years ago, the average age of Ramesh's family having 5 members was 17 years. Ramesh becomes father but the average age of his family is same today. What is the present age of baby?

a)1 year
b)2 years
c)3 years
d)4 years

Answer option(b)

Three years ago total age of family having 5 members = 5×17 = 85 years
At preset there are 6 members is the family but average is same. Therefore

$$\frac{85+3+3+3+3+3+baby}{6}=17$$

So baby age will be = 102-100= 2 years

6. Sunita appeared for a test consisting of 260 questions and answered 40% of the first 130 questions correctly. What percentage of the rest 130 questions must she answer correctly so as to score 60% in the entire test?

a) 84%

b) 75%

c) 70%

d) 80%

Answer option (d)
Total number of questions = 260 Correct, 40 % of first 130 questions = 52 60% of total questions = 60% of 260 = 156 Total number of questions that is to be correct out of last 130 questions =156-52 =104 Required percentage= 104/130 × 100% = 80% Hence, option D is the correct answer.

7. Ram is 5 times the present age of his son. If after 5 years his age would be 4 times of his son's age. Find what times of Ram's age to his son before 12 years?

a) 3 times
b) 6 times
c) 12 times
d) 21 times

Answer option (d)
Let the present age of ram 5x and the present age of his son x Now, according to question, 5X + 5 = 4 (X + 5) x = 15 years So, age of ram before 12 years = 5x — 12 Age of ram's son before 12 years = x -12 = 5x 15-12 = 63 years = 15- 12=3 years Ratio of ram's age and his son's age = 63: 3 = 21: 1 Therefore, ram is 21 times of his son's age.

8. The population of a town is 10000. Of these, 55% are males. 30% of the males are illiterate. In total, 52% population is literate. What percentage of females, out of total number of females are illiterate?

A. 40% B. 50% C. 60% D. 70%

Answer option (d)
Population of the town = 10000 No. of males = 10000 × 55% = 5500 No. of females = 10000 – 5500 = 4500 No. of illiterate males = 5500 × 30% = 1650 No. of persons illiterate in total population = 10000 × 48% = 4800 No. of illiterate females = 4800 – 1650 = 3150

Required percentage =3150/4500 × 100 = 70%

9. if A's salary is 66.66% more than B's salary then B's salary is how much percent less than A's salary?

a) 65
b) 45
c) 40
d)75

Answer option (c)

Rationale-
Lets B's salary be 90
A's salary = 166.66% of 90 = 150
Required percentage = $\frac{(150-90)}{150} \times 100$

= 40%

10. What is difference between $\frac{3}{5}$ of 200 and $\frac{1}{2}$ of 300

a) 100
b) 200
c) 60
d) 30

Answer option (d)

Required difference = $\frac{1}{2} \times 300 - \frac{3}{5} \times 200$

= 150 -120
= 30

11. Mohan's age 10 years ago was thrice the age of his son Sohn. Ten years hence, Mohan's age will be twice that of Sohan. The ratio of their present ages is:

a) 9 : 2
b) 7 : 3
c) 13 : 4
d) 5 : 2

Answer option (d)

Rationale:
Let the Present age of Mohan and Sohan are M and S respectively
10 year ago their ages are → M-10 = 3 × (S-10)……Eq 1
10 year hence their ages wil be → M+10 = 2 (S+10)…Eq 2

After solving equation 1 and 2
M =70
S =30
Ratio will be M : S = 7 : 3

12. In a village, 15% of the population are females and there are 272 males. Find the total population of that village.

a) 400
b) 420
c) 380
d) 320

Answer option (d)
Rationale: Total population of the village $= \frac{272}{85} \times 100$ $= 320$

13. Saanvi got RS 50. from her father and bought a toffee for Rs 15. Her mother gave her Rs 30, but her brother took 42 from her. How much money was left with her?

a) 20 rs
b) 25 rs
c) 23 rs
d) 24 rs

Answer option (c)
Rationale: Money left with her = 50-15+30-42 = 23 Rs

14. Rahul has Rs. 340 in the denominations of Rs. 2 notes, Rs. 5 notes and Rs. 10 notes. The number of

notes of each denomination is equal. What is the total number of notes that Rahul has?

a) 40
b) 60
c) 20
d) 80

Answer option (b)
Rationale: Let the total number of notes be 3x (as he has equal denomination of notes) ATQ - 2X+ 5X+ 10x= 340 17x= 340 x = 20 So, the total number of notes = 3 x 20 Hence, option B is the correct answer. = 60.

15. The ratio of the incomes of A and B is 2 : 3 and that of their expenditure is 1 : 2. If 90% of B's expenditure is equal to the income of A, then what is the ratio of the savings of A and B?

a) 8:7
b) 1:1
c) 7:9
d) 2:3

Answer option (a)

→$\frac{A's\ Income}{B'sIncome}$ => $\frac{2x-1}{3x-2}$ = $\frac{A's\ Saving}{B's\ Saving}$

→90% of 2 = 2x

→$\frac{90}{100}$ × 2 = 2X

→X = $\frac{9}{10}$

ATQ:

→$\frac{18}{10}$ -1 : $\frac{27}{10}$ -2 = A's Saving : B's Saving

→8 : 7 = A's Saving : B's Saving