BHARAT SCHOOL OF BANKING
PROBLEMS BASED ON AGES

Q1. Present ages of Rama and Shyam are in the ratio of 4 : 5 respectively. Five years hence the ratio of their ages becomes 5 : 6 respectively. What is Rama's present age?
(a) 25 years
(b) 22 years
(c) 20 years
(d) 30 years
(e) None of these

S1. Ans.(c)

Sol. Let the present ages of Rama and Shyam be
4x and 5x years respectively,

$$= \frac{4x+5}{5x+5} = \frac{5}{6}$$

25x + 25 = 24x + 30

x = 30 − 25 = 5

Rama's present age = 4 × 5 = 20 years

Q2. In a family, a couple has a son and daughter. The age of the father is three times that of his daughter and the age of the son is half of his mother. The wife is nine years younger to her husband and the brother is seven years older than his sister. What is the age of the mother?
(a) 40 years
(b) 45 years
(c) 50 years
(d) 60 years
(e) 65 years

S2. Ans.(d)

Sol. Let the mother's age be y years.
The age of father = (y + 9) years
The age of son = y/2 years
The age of daughter = $\left(\frac{y}{2} - 7\right) years$

Now according to the given condition,
$(y + 9) = 3(\frac{y}{2} - 7)$

$y + 9 = \frac{3y-42}{2}$

2y + 18 = 3y − 42

y = 60 years

Q3. Ram's present age is three times his son's present age and two-fifth of his father's present age. The average of the present ages of all of them is 46 years. What is the difference between the Ram's son's present age and Ram's father's present age?
(a) 68 years
(b) 88 years

(c) 78 years
(d) Cannot be determined
(e) None of these

S3. Ans.(c)

Sol. Suppose age of Ram = R his son's age = S

and his father's age = F

According to question,

S = R/3 and R = F x 2/5

F = 5R/2 and (R+S+F)/3 = 46

R + S + F = 46 × 3

R = 36

S = 12

F = 90

Required Difference = 90-12 = 78

Q4. Abhay's age after six years will be three-seventh of his father's age. Ten years ago, the ratio of their ages was 1 : 5. What is Abhay's father's age at present?
(a) 30 yrs.
(b) 40 yrs.
(c) 50 yrs.
(d) 60 yrs.
(e) 70 years

S4. Ans.(c)

Sol. Let the ages of Abhay and his father 10 years ago be x and 5x years respectively. Then,

Abhay's age after 6 years = (x + 10) + 6 = (x + 16) years.

Father's age after 6 years = (5x + 10) + 6 = (5x + 16) years.

$(x+16) = \frac{3}{7}(5x + 16)$

7x + 112 = 15x + 48

8x = 64 => x = 8.

Hence, Abhay's father's present age = (5x + 10) = 50 years.

Q5. The present ages of three persons are in proportions 4 : 7 : 9. Eight years ago, the sum of their ages was 56. Find their present ages (in years).
(a) 8, 20, 28
(b) 16, 28, 36
(c) 20, 35, 45
(d) 25, 30, 40
(e) None of these

S5. Ans.(b)

Sol. Let their present ages be 4x, 7x and 9x years respectively.

Then, $(4x - 8) + (7x - 8) + (9x - 8) = 56 \Rightarrow 20x = 80 \Rightarrow x = 4$.

Their present ages are 16 yrs, 28 yrs. and 36 yrs. respectively.

Q6. Tanya's grandfather was 8 times older to her 16 years ago. He would be 3 times of her age 8 years from now. Eight years ago, what was the ratio of Tanya's age to that of her grandfather?
(a) 1 : 2
(b) 1 : 5
(c) 3 : 8
(d) 11 : 53
(e) None of these

S6. Ans.(d)

Sol. 16 years ago, let T = x years and G = 8x years

After 8 years from now, T = (x + 16 + 8) years and

G = (8x + 16 + 8) years.

$8x + 24 = 3(x + 24) \Rightarrow 5x = 48$.

8 years ago, $\dfrac{T}{G} = \dfrac{x+8}{8x+8} = \dfrac{\frac{48}{5}+8}{\frac{8*48}{5}+8} = \dfrac{88}{424} = \dfrac{11}{53}$

Q7. Q is as much younger than R as he is older than T. If the sum of the ages of R and T is 50 years, what is definitely the difference between R and Q's age?
(a) 1 year
(b) 2 years
(c) 25 years
(d) Data inadequate
(e) None of these

S7. Ans.(d)

Sol. $R - Q = R - T \Rightarrow Q = T$. Also, R + T = 50

R + Q = 50

So, (R − Q) cannot be determined.

Q8. The sum of the ages of a father and his son is 45 years. Five years ago, the product of their ages is 34. Find the present age of father.
(a) 32 years
(b) 36 years
(c) 38 years
(d) 40 years
(e) 39 years

S8. Ans.(e)

Sol. Let the ages of father and son be x and (45 − x) years respectively.

Then, (x − 5) (45 − x − 5) = 34

(x − 5) (40 − x) = 34 => x² − 45x + 234 = 0

(x − 39) (x − 6) = 0 => x = 39 or x = 6.

Father's age = 39 years and son's age = 6 years

Q9. The sum of the ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?
(a) 4 years
(b) 8 years
(c) 10 years
(d) 12 years
(e) None of these

S9. Ans.(a)

Sol. Let the ages of children be x, (x + 3), (x + 6), (x + 9) and (x + 12) years.

Then, x + (x + 3) + (x + 6) + (x + 9) + (x + 12) = 50

=> 5x = 20 => x = 4.

Age of the youngest child = x = 4 years.

Q10. If 6 years are subtracted from the present age of Gagan and the remainder is divided by 18, then the present age of his grandson Anup is obtained. If Anup is 2 years younger to Madan whose age is 5 years, then what is Gagan's present age?
(a) 48 years
(b) 60 years
(c) 84 years
(d) 96 years
(e) 100 years

S10. Ans.(b)

Sol. Anup's age = (5 − 2) years = 3 years. Let Gagan's age be x years.

Then, (x-6)/18 = 3 => x-6 = 54

x = 60.