PEA502A – Lecture #5

PROBLEMS ON NUMBERS & AGES

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PROBLEMS ON AGES

There are two ways to solve problems on ages :

- ✓ By forming Equation
- ✓ By Elimination Method

Question Q5.1

If Rajeev's age after 15 years will be 5 times his age 5 years back. What is the present age of Rajeev?

A. 8 years

B. 9 years

C. 10 years

D. None of these

Answer: Option **C**

Question Q5.2

The sum of 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. None of these

Answer: Option **A**

Explanation:

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.

Question Q5.3

A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was:

A. 14 years

B. 19 years

C. 33 years

D. 38 years

Answer: Option **A**

Explanation:

Let the son's present age be x years. Then, $(38 - x) = x$

$2x = 38.$

$x = 19.$

Son's age 5 years back $(19 - 5) = 14$ years.

Question P5.1

A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of his son is:

A. 14 years

B. 18 years

C. 20 years

D. 22 years

Answer: Option **D**

Explanation:

Let the son's present age be x years. Then, man's present age = $(x + 24)$ years.

$(x + 24) + 2 = 2(x + 2)$

$x + 26 = 2x + 4$

$x = 22$.

Question P5.2

Six years ago, the ratio of the ages of Kunal and Sagar was 6 : 5. Four years hence, the ratio of their ages will be 11 : 10. What is Sagar's age at present?

A. 16 years

B. 18 years

C. 20 years

D. Cannot be determined

E. None of these

Answer: Option **A**

Explanation:

Let the ages of Kunal and Sagar 6 years ago be $6x$ and $5x$ years respectively.

Then, $((6x + 6) + 4) / ((5x + 6) + 4) = 11 / 10$

$10(6x + 10) = 11(5x + 10)$

$5x = 10$

$x = 2$.

Sagar's present age = $(5x + 6) = 16$ years.

PROBLEM ON NUMBERS

Question Q5.4

The difference between a number and its three-fifth is 50. What is the number ?

A. 75

B. 100

C. 125

D. None of these

Answer : C

Question Q5.5

A number is doubled and 9 is added. If the resultant is trebled, it becomes 75. What is that number ?

A. 3.5

B. 6

C. 8

D. None of these

Answer : C

Question Q5.6

When 24 is subtracted from a number, it reduces to its four-seventh. What is the sum of the digits of that number ?

A. 1

B. 9

C. 11

D. Data inadequate

Answer : C

Question P5.3

Find the number which when multiplied by 15 is increased by 196.

A. 14

B. 20

C. 26

D. 28

Answer : A

Question P5.4

Twenty times a positive integer is less than its square by 96. What is the integer ?

A. 20

B. 24

C. 30

D. Can not be determined

Answer : B

Next Class: PERCENTAGE