Banking Daily Quiz Blog - August 25

ENTRI

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1. **Read the instruction carefully and answer the questions based on it.**

   What will come in the place of the question mark (?) in the following number series?

A. $11, ?, 32, 60, 116, 228$

A 26

B **18**

C 16

D 17

E 20

Solution

$(11 - 2) \times 2 = ? = 18$

$(18 - 2) \times 2 = 32$

$(32 - 2) \times 2 = 60$

$(60 - 2) \times 2 = 116$

$(116 - 2) \times 2 = 228$

B. $44, 41, 36, 29, 18, ?$

A 3

B 4

C **5**

D 6

E 7

Solution

$44 - 3 = 41$

$41 - 5 = 36$

$36 - 7 = 29$

$29 - 11 = 18$

$18 - 13 = ? = 5$

c. $11, 5, 4, 4.5, ?, 15$

A 6

B **7**

C 7.5

D 8

E 8.5

Solution

$11 \times 0.5 - 0.5 = 5$

$5 \times 1 - 1 = 4$

$4 \times 1.5 - 1.5 = 4.5$

$4.5 \times 2 - 2 = ? = 7$

$7 \times 2.5 - 2.5 = 15$

D. $7, 8, 18, 57, ?, 1165$

A 236

B 234

C 228

D 230

E 232

Solution

$7 \times 1 + 1 = 8$

$8 \times 2 + 2 = 18$

$18 \times 3 + 3 = 57$

$57 \times 4 + 4 = ? = 232$

$232 \times 5 + 5 = 1165$

E. $15, 15, 22, 48, 111, ?$

A 335

B 230

C 234

D **235**

E 236

Solution

$$15 + 1^3 - 1 = 15$$

$$15 + 2^3 - 1 = 22$$

$$22 + 3^3 - 1 = 48$$

$$48 + 4^3 - 1 = 111$$

$$111 + 5^3 - 1 = 235$$

2. **Read the instruction carefully and answer the questions based on it.**

In each of the following questions, a question is followed by three statements I, II and III. Read all the statements to find the answer to given question and then answer accordingly that which statement/s can give the answer alone/together.

A. **Find the probability of drawing two yellow and two red balls from the bag.**

I.Probability of drawing one red ball from the bag is $\frac{3}{7}$

II.The bag contains 6 red and some yellow balls.

III.Probability of drawing one yellow ball from the bag is $\frac{4}{7}$.

A Only III

B **Only II and either I or III**

C Only I and III

D All I, II and III

E None is sufficient

Solution

Answer: B

From I:

Probability of drawing one red ball from the bag is $\frac{3}{7}$

From II:

Red $= 6$

From III:

Probability of drawing one yellow ball from the bag is $\frac{4}{7}$.

From I and II:

Let number of yellow balls $= n$

$=> \frac{6}{6+n} = \frac{3}{7}$

$=> 42 = 18 + 3n$

$=> 3n = 42 - 18$

$=> 3n = 24$

$=> n = 8$

Total number of balls $= 6 + 8 = 14$

Required probability $= \frac{({}^6C_2 \times {}^8C_2)}{({}^{14}C_4)}$

$= \frac{15 \times 28}{1001}$

$= \frac{60}{143}$

From II and III:

Let number of yellow balls $= n$

$=> \frac{n}{6+n} = \frac{4}{7}$

$=> 7n = 24 + 4n$

$=> 3n = 24$

$=> n = 8$

Total number of balls $= 6 + 8 = 14$

Required probability $= \frac{({}^6C_2 \times {}^8C_2)}{({}^{14}C_4)}$

$= \frac{15 \times 28}{1001}$

$= \frac{60}{143}$

Hence, only II and either I or III are sufficient.

B. **Find the age of Shyama after four years.**

I.Ratio of the present ages of Rama and Nikhil is 14:11 respectively.

II.Ratio of the present ages of Shyama and Nikhil is 2:1 respectively.

III.After 4 years, ratio of the ages of Rama and Nikhil will be 16:13 respectively.

A **All I, II and III**

B Only II and III

C Only II

D Any two of the three

E Even I, II and III together are not sufficient.

Solution

Answer: A

From I:

Rama: Nikhil= $14:11$

From II:

Shyama: Nikhil $= 2:1$

From III:

$(Rama + 4) : (Nikhil + 4) = 16 : 13$

From I, II and III:

$Rama : Nikhil = 14 : 11$

$Shyama : Nikhil = 2 : 1$

$(Rama + 4) : (Nikhil + 4) = 16 : 13$

Let the present ages of Rama and Nikhil be $14x$ years and $11x$ years respectively.

According to the question

$\frac{14x+4}{11x+4} = \frac{16}{13}$

$=> 13 \times (14x + 4) = 16 \times (11x + 4)$

$=> 182x + 52 = 176x + 64$

$=> 182x – 176x = 64 – 52$

$=> 6x = 12$

$=> x = 2$

Present age of Nikhil $= 11x = 11 \times 2 = 22\ years$

Present age of Shyama $= \frac{2}{1} \times 22 = 44\ years$

Age of Shyama after four years $= 44 + 4 = 48\ years$

Hence, All I, II and III are required.

C. **Find the difference between compound interest and simple interest on the sum at the rate of 6% per annum after three years.**
I.Simple interest on that sum after four years at certain rate of interest is Rs.20800.
II.At the same rate of interest the sum amount to Rs.62920 at compound interest after two years.
III.Simple interest on that sum after six years at the rate of 8% per annum is Rs.24960.

A Only II

B **Only III**

C Either only III or I and II together

D All I, II and III

E None is sufficient

Solution

Answer: B

From I:

$\frac{(P\times r\times 4)}{100} = 20800$

From II:

$P \times (1+\frac{r}{100})^2 = 62920$

From III:

$\frac{(P\times 8\times 6)}{100} = 24960$

$=> P = 24960 \times \frac{100}{48}$

$=> P = Rs.\ 52000$

We know that, for three years

$CI-SI = P \times (\frac{r}{100})^2 \times (\frac{(300+r)}{100})$

$=> CI-SI = 52000 \times (\frac{6}{100})^2 \times (\frac{(300+6)}{100})$

$=> CI-SI = 52000 \times (\frac{3}{50})^2 \times \frac{153}{50}$

$=> CI-SI = 52000 \times \frac{9}{2500} \times \frac{153}{50}$

$=> CI-SI = Rs.\ 572.832$

From I and II:

$\frac{P\times r\times 4}{100} = 20800$

$=> P = 20800 \times \frac{100}{4r}$

$=> P = \frac{520000}{r} - - - -(i)$

$P \times (1+\frac{r}{100})^2 = 62920 - - - -(ii)$

From (i) and (ii)

$\frac{520000}{r} \times \frac{(100+r)^2}{10000} = 62920$

$=> \frac{52}{r} \times (100+r)^2 = 62920$

$=> (100+r)^2 = 1210r$

$=> 10000 + 200r + r^2 = 1210r$

$=> r^2 - 1010r + 10000 = 0$

$=> r^2 - 1000r - 10r + 10000 = 0$

$=> r(r-1000) - 10(r-1000) = 0$

$=> (r-10)(r-1000) = 0$

$=> r = 10, 1000$

$P = \frac{520000}{10}, \frac{520000}{1000}$

$=> P = 52000, 520$

Cannot be determined the exact value of P and hence the required value cannot be determined.

Hence, only III is sufficient.

D. **Find the share of Ramu in the profit at the end of three years.**

I.Ramu and Somu started a business with investment of Rs.56000 and Rs.42000 respectively.

II.After one year Tonu joined the business with investment of Rs.60000.

III.After one more year Meena also joined the business. At the end of three years, they earned a total profit of Rs.340000.

A All I, II and III

B Any two of the three

C Only II

D Only III

E None is sufficient

Solution

Answer: E

From I:

Ramu and Somu started a business with investment of Rs.56000 and Rs.42000 respectively.

From II:

After one year Tonu joined the business with investment of Rs.60000.

From III:

After one more year Meena also joined the business. At the end of three years, they earned a total profit of Rs.340000.

Since, investment amount of Meena is not known, required value cannot be determined.

Hence, none is sufficient.

E. **Find the Quantity of milk in the final mixture.**
I.Ratio of milk and water in the initial mixture is 5:3 respectively.
II.The milkman sold some amount of the mixture to a lady.
III.The milkman added 6 litres more milk to the mixture and hence the ratio becomes 6:5.

A All I, II and III

B Any two of the three

C Only II

D Only III

E Even I, II and III together are not sufficient.

Solution

Answer: E

From I:

Ratio of milk and water in the initial mixture is 5:3 respectively.

From II:

The milkman sold some amount of the mixture to a lady.

From III:

The milkman added 6 litres more milk to the mixture and hence the ratio becomes 6:5.

Since quantity of milk sold by the milkman is not known, required value cannot be find out.

Hence, even I, II and III together are not sufficient