Date Interpretation Info Chart Questions Quiz for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

DI Info Chart Quiz 8

Directions: Study the given information carefully to answer the questions.

Krishna invested some money under 20% per annum simple interest in Axis bank. At the end of one – year, he withdrew all amount from the Axis bank and invested in Bandhan bank at the rate of R % per annum under compound interest compounded annually for two years and received Rs. 57600 as total interest from the Bandhan bank. The first year's interest at Bandhan bank was Rs. 24000.

1. In starting, how much money had Krishna invested in Axis bank?

A. Rs. 60000 B. Rs. 75000 C. Rs. 10000 D. Rs. 50000 E. None of these

2. Total how much interest did Krishna get from the Axis bank and the Bandhan bank together?

A. Rs. 68600 B. Rs. 67600 C. Rs. 64600 D. Rs. 71200 E. None of these

3. If the rate of interest was interchanged i.e. Axis bank had offered R% per annum simple interest and Bandhan bank had offered 20% per annum compound interest then how much less money Krishan would have received at the end of 3 years?

A. Rs. 16800 B. Rs. 15800 C. Rs. 14800 D. Rs. 16400 E. None of these

4. If Krishan had invested the sum of money only in Axis bank for 3 years under 20% per annum simple interest then at the end of 3 years, total how much simple interest he would have received from the Axis bank?

A. Rs. 25000 B. Rs. 30000 C. Rs. 40000 D. Rs. 20000 E. None of these

5. If the first year's interest at Bandhan bank was same as the simple interest received from the Axis bank at the end of 1 year and the rate of interest for the Bandhan bank remained constant then what should be the rate of interest for Axis bank?

A. 40% B. 50% C. $66\frac{2}{3}$2/3 % D. $66\frac{2}{5}$% E. $43\frac{2}{5}$%

Correct Answers:

1	2	3	4	5
D	B	A	B	C

Common explanation :

Let the sum of money he invested in Axis bank = 100x then at the end of one year

$$\text{Amount} = \frac{100x \times 1 \times 20}{100} + 100x = 120x$$

The CI of 2 years = 57600
The CI of 1 year = 24000
Difference = 57600 – 24000 = 33600
Now, 33600 – 24000 = 9600
At R% per annum, 24000 gives compound interest of Rs. 9600

$$\frac{24000 \times R}{100} = 9600$$

R = 40% per annum

Answers :-

1. Following the common explanation, we get
At 40% per annum, 120x gives compound interest of 57600 in two years or Rs. 24000 in one year

$$CI = P\left(1 + \frac{R}{100}\right)^N - P$$

$$120x\left(1 + \frac{40}{100}\right) - 120x = 24000$$

$120x \times 1.4 - 120x = 24000$
$168x - 120x = 48x = 24000$

$$x = \frac{24000}{48} = 500$$

The sum of money he had invested in Axis bank = 100x = 100 × 500 = Rs. 50000

Hence, option D is correct.

2. Following the common explanation, we get
The interest, Krishna received from Axis bank = 20x = 20 × 500 = 10,000
The interest from Bandhan bank = 57600
The required sum = 10,000 + 57600 = 67600
Hence, option B is correct.

3. Following the common explanation, we get
P = 50000
R = 40%
1st year = 40% per annum SI
Next 2 years = 20% per annum CI
Amount at the end of 1st year i.e. received from the Axis bank = 50000 + 40% of 50000 = 70000
SI = 70000 – 50000 = 20000
From the Bandhan bank

$$CI = P\left(1 + \frac{R}{100}\right)^{N} - P$$

$$CI = 70000\ \left(1 + \frac{20}{100}\right)^{2} - 70000$$

CI = 30800
Total interest = 20000 + 30800 = 50800
The interest, Krishna received from Axis bank = 20x = 20 × 500 = 10,000
The interest from Bandhan bank = 57600
The required sum = 10,000 + 57600 = 67600
The required difference = 67600 – 50800 = 16800
Hence, option A is correct.

4. Following the common explanation, we get
P = 50000

$$\text{SI at the end of 3 years} = \frac{50000 \times 20 \times 3}{100} = \text{Rs. } 30{,}000$$

Hence, option B is correct.

5. Following the common explanation, we get
P = 50,000
Let the interest received from the Axis bank = Rs. x then
the first year's interest at Bandhan bank = 40% of (50000 + x) = x
20000 + 0.4x = x
0.6x = 20000

$$x = \frac{200000}{6} = \frac{100000}{3}$$

$$R = \frac{SI \times 100}{P \times T}$$

$$R = \frac{(100000/3) \times 100}{50000 \times 1} = \frac{1000}{15} = \frac{200}{3}\% = 66\frac{2}{3}\%$$

Hence, option C is correct.