Compound Interest Questions Quiz for Bank Clerk Pre Exams.

Compound Interest Quiz 8

Directions: Kindly study the following Questions carefully and choose the right answer:

1. Reet invested an amount of Rs A for 2 years at 12% compound interest and received some amount of interest. Sonali invested Rs (A + 1500) for 3 years at 8% simple interest and received same amount of interest as Reet received. Find the amount that is invested by Reet.

A. Rs 20000 B. Rs 25000 C. Rs 30000 D. Rs 27500 E. Rs 22500

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2. Shivani has some amount of money ans she invested the money in two schemes A and B in the ratio of 2 : 5 for 2 years, scheme A offers 30% pa compound interest and scheme B offers 15% pa Simple interest. Difference between the interest earned from both the schemes is Rs.1080. How much was invested in scheme B?

A. Rs. 45000 B. Rs. 36000 C. Rs. 40000 D. Rs. 50000 E. None of these

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3. A sum of Rs.8584 is to be paid back in 3 equal annual installments. How much is each installment if the interest is compounded annually at 14% per annum?

A. Rs. 3700 B. Rs. 5400 C. Rs. 4500 D. Rs. 5500 E. None of these

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4. Anjana lent Rs. 7000 to Sunil for 3 years and Rs. 5000 to Saurabh for 5 years on simple interest at the same rate of interest and she received Rs. 5520 from both of them as interest. Find the rate of interest.

A. 10% B. 21% C. 12% D. 15% E. None of these

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5. The compound interest on Rs 7500 in 2 years when the successive rate of interest on successive years is 8% and 10% respectively:

A. Rs 1410 B. Rs 7510 C. Rs 1497 D. Rs 1401 E. None of these

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6. How much will Rs. 40000 amount to when compounded annually @ 15% if the simple interest earned on the same amount for the same period and rate will be Rs. 12000?

A. 68400 B. 65200 C. 56000 D. 52900 E. None of the these

7. What is the difference between simple interest and compound interest earned on Rs. 15000 for 2 years if rate of interest is 20%?

A. Rs. 400 B. Rs. 500 C. Rs. 600 D. Rs. 800 E. None of the these

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8. If the compound interest on a certain sum for 2 years is Rs. 636 at a 12% p.a. Find the double of the sum.

A. Rs. 4500 B. Rs. 2500 C. Rs. 3000 D. Rs. 5000 E. None of these

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9. A sum fetches a simple interest of Rs. 6000 at the rate of 5% p.a. in 6 years. What would be the compound interest earned at the same rate of interest and the same principal in 2 years?

A. Rs. 2500 B. Rs. 2125 C. Rs. 2245 D. Rs. 2325 E. Rs. 2050

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10. Amit deposited some money in a bank, which pays 15% interest per annum compounded yearly. If the bank provides simple interest instead of compound interest, he receives Rs. 2400 after 2 years. Find the total Amount that he received after 2 years.

A. Rs. 10960 B. Rs. 9500 C. Rs. 10500 D. Can't be determined
E. None of these

Correct Answers:

1	2	3	4	5	6	7	8	9	10
B	A	A	C	A	D	C	D	E	E

Explanations:

1. According to the question,

$A\left(1+\frac{12}{100}\right)^2 - A = (A + 1500) \times 8\% \times 3$

$A \times \frac{112}{100} \times \frac{112}{100} - A = A \times \frac{24}{100} + 360$

$A \times \frac{12544}{10000} - A - A \times \frac{24}{100} = 360$

$\frac{12544A - 10000A - 2400A}{10000} = 360$

$144A = 3600000$

$A = 25000$

Amount invested by Reet = Rs 25000

Hence, option B is correct.

2. Let the amount invested in scheme A is $2 \times 50 = 100$, the amount invested in scheme B is $5 \times 50 = 250$

Interest from scheme A $= 100 \times \left(1+\frac{30}{100}\right)^2$

$= 169 - 100 = Rs.69$

Interest from scheme B $= 250 \times 15\% \times 2$

$= Rs.75$

Difference between interest $= 75 - 69 = Rs.6$

If the difference is Rs. 6, investment in scheme B = Rs.250

so the difference is Rs.1080,

investment in scheme B $= Rs. \frac{250}{6} \times 1080. = Rs.45000$

Hence, option A is correct.

3. Given that principal P = Rs.8584

Rate R = 14%

Number of investments = 3

⇒ Value of each installment

$$= \frac{P}{\left(\frac{100}{100+R}\right) + \left(\frac{100}{100+R}\right)^2 + \left(\frac{100}{100+R}\right)^3}$$

$$= \frac{8584}{\left(\frac{100}{100+14}\right) + \left(\frac{100}{100+14}\right)^2 + \left(\frac{100}{100+14}\right)^3}$$

$= \frac{8584}{2.32}$ = Rs. 3700

Hence, option (A) is correct.

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4. Let the rate of interest = x%

According to the question,

7000 × 3 × x% + 5000 × 5 × x% = 5520

210x + 250x = 5520

460x = 5520

x = 12%

Rate of interest = 12%

Hence, option C is correct.

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5. Amount at the end of 2nd year

$$= Rs7500\left(1+\frac{8}{100}\right)\left(1+\frac{10}{100}\right)$$

= Rs7500 × 1.08 × 1.10

= Rs 8910

Thus C.I. for two years = amount – principal

= Rs8910 – Rs 7500 = Rs 1410

Hence, option A is correct.

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6. Since the SI earned is given we can find out the time period i.e.,

$$12000 = \frac{40000 \times 15 \times t}{100}$$

⇒ t = 2 years

Now the amount can be found out by the CI formula

40000 × 1.15 × 1.15 = 52900

Hence, option (D) is correct.

7. Principal = 15000
Time= 2 years
Interest = 20%
Simple Interest Earned for (Interest will be 2 × 20 = 40%) = 40% of 15000 = 6000 (Kindly refer to Sub-details)
Compound Interest Earned (Interest will be 44%)= 44% of 15000 = 6600 (Kindly refer to Sub-details)
Difference = 6600 – 6000 = Rs. 600

Sub-details:
SI for 2 years at the rate of 20% = 20 × 2 = 40%
And CI for 2 years at rate of 20%**:**
We can calculate the effective rate of interest by applying the net% effect formula

$= x + y + \frac{xy}{100}\%$

Here, x = 20% and y = 20%
So, the effective rate of interest for 1st two years will be as follows:

$= 20 + 20 + \frac{20 \times 20}{100} = 44\%$

Hence, option (C) is correct.

8.

Compound Interest = $P\left(1 + \frac{12}{100}\right)^2 - P$

$636 = P\left(1 + \frac{12}{100}\right)^2 - P$

$636 = P\left(1 + \frac{3}{25}\right)^2 - P$

$636 = P\left(\frac{28}{25}\right)^2 - P$

$636 = \frac{784P}{625} - P$

$636 = \frac{159P}{625}$

$636 \times \frac{625}{159} = P$

P = 2500 Rs

Double of the sum = 2500 × 2 = 5000 Rs.

Hence, option D is correct.

9. Let Rs. P be the principal value.

$\therefore\ 6000 = \frac{P \times 5 \times 6}{100}$

$\therefore$ P = Rs. 20000

$\text{Amount} = P \times \left(1 + \frac{R}{100}\right)^2$

$= 20000 \times \left(1 + \frac{R}{100}\right)^2$

$\therefore$ Amount = Rs. 22050

$\therefore$ CI = 22050 – 20000 = Rs. 2050

Hence, option E is correct.

10.

$S.I = \frac{P \times R \times T}{100}$

$2400 = \frac{P \times 15 \times 2}{100}$

P = Rs 8000

$A = P\left(1 + \frac{r}{100}\right)^2$

$A = 8000\ \left(1 + \frac{15}{100}\right)^2$

$A = 8000\ \left(\frac{115}{100} \times \frac{15}{100}\right)$

A = Rs. 10580

Hence, option E is correct.