Crack CSIR-NET Part A

(Most Important Question On Simple Interest)

1.Ms Ayesha borrowed Rs. 1000 at 5% per annum simple interest. What amount (in rupees) will she pay to clear her debt after 4 years?

A. 200

B. 1200

C. 220

D. 1300

2.The amount of simple interest on a deposit of ₹8,500 for 3 years is ₹2,040. Find the rate of interest per annum.

A. 8%

B. 8.5%

C. 9%

D. 7.5%

3.Find the simple interest of Rs. 2000 for 8.25% yearly rate from 9 March, 2010 to 21 May, 2010.

(A) Rs. 43 (B) Rs. 37

(C) Rs. 33 (D) Rs. 40

A. (A)

B. (B)

C. (D)

D. (C)

4.Ram lends 6000 to Shiv for 3 years and 8000 to Krishna for 5 years at same annual rate. He received 5220 in all from both as interest. The rate of interest per annum is :

(A) 6% (B) 7%

(C) 8% (D) 9%

A. (C)

B. (B)

C. (A)

D. (D)

5.The simple interest on a certain sum of money for 2 years at 10% per annum is Rs.2000. If interest compounded yearly on the sum, then what will be the difference of both type of interest:

(A) Rs.200 (B) Rs.220

(C) Rs.100 (D) Rs.120

A. (D)

B. (B)

C. (C)

D. (A)

6.An amount was invested at a simple rate of interest p.a. for 5 years. It would have fetched Rs. 300 more had it been invested at 2% higher rate. What was the amount invested?

A. Rs. 3300

B. Rs. 3000

C. Rs. 2000

D. Rs. 2300

7.Ms. Diksha borrowed Rs. 575 at 5% per annum simple interest. What amount (in rupees) will she pay to clear her debt after 4 years?

A. 690

B. 151

C. 960

D. 115

8.The maturity values of an amount in 5 and 6 years at 8% simple interest p.a. are Rs. 1120 and Rs. 1184 respectively. Find the amount.

A. Rs. 560

B. Rs. 800

C. Rs. 160

D. Rs. 600

9.A sum of money at simple interest amounts to ₹2100 in 2 yr and ₹2250 in 5 yr. The principal and the rate of interest

A. ₹1800, 3%

B. ₹1800, 5%

C. ₹2000, 3%

D. ₹2000, $2\frac{1}{2}\%$

10.A sum was invested, on simple interest at a certain rate for 2 yr. Had it been put at 3% higher rate, it would have fetched ₹ 72 more. The sum is

A. ₹ 1200

B. ₹ 1500

C. ₹ 1600

D. ₹ 1800

SOLUTION

1. Ans. B.

Interest in 4 years = 5% × 4 = 20% of the Principal

Hence, Interest = 20% × 1000 = Rs 200

Amount = 1000 + 200 = Rs 1200

Hence, option B is the correct answer.

2. Ans. A.

Simple Interest = Rs. 2040

Principal = Rs. 8500

We know that ,

$$\text{Simple Interest} = \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

$$\Rightarrow 2040 = \frac{8500 \times Rate \times 3}{100}$$

$$\Rightarrow \text{Rate} = \frac{2040 \times 100}{8500 \times 3} = \frac{204000}{25500} = 8$$

Hence, Rate of interest per annum = 8%

3. Ans. D.

Total days = 23(March)+30(April)+21(May)

= 74 days = 74/365 years

$$S.I = \frac{2000 \times 8.25 \times 74}{100 \times 365}$$

$$= 33(approx)$$

4. Ans. D.

Let rate be r%

Interest on first = r% of (6000×3) = 180r

Interest on second = r% of (8000×5) = 400r

Now, according to question:

5220 = 180r + 400r

r = 5220/580 = 9 %

5. Ans. C.

At SI: total interest rate in two years = 20%

At CI: total Interest rate in two years = 10 + 10 + (10×10)/100 = 21%

Now 20% = Rs. 2000

⇒ 1% = Rs.100

Thus, Difference between CI and SI = 21% - 20% = 1% = Rs.100

6. Ans. B.

Difference in the simple interest in 5 years = 2×5 = 10%

Given, 10% of the Amount = Rs 300

Hence, the amount = 300×10 = Rs 3000

7. Ans. A.

Principal = Rs. 575

Rate = 5% per annum simple interest

Time = 4 years

Simple Interest = $\frac{575\times5\times4}{100}=\text{Rs. }115$

Amount payable after 4 years = $\text{Rs. }575+\text{Rs. }115=\text{Rs. }690$

8. Ans. B.

Given, 8% of the amount = 1184−1120 = Rs 64

Hence, the amount = (64/8) ×100 = Rs 800

9. Ans. D.

$$Rate\% = \frac{(B-A)\times100}{(Ab-Ba)}$$

(Here B = 2250, A = 2100, b = 5 and a = 2)

$$=\frac{(2250-2100)\times100}{2100\times5-2250\times2}$$

$$=\frac{150\times100}{10500-4500}$$

$$=\frac{15000}{6000}=2\frac{1}{2}\%$$

Principal $=\frac{Ab-aB}{(b-a)}$

$$=\frac{2100\times5-2250\times2}{(5-2)}$$

$$=\frac{(10500-4500)}{3}$$

= Rs. 2000

10. Ans. A.

We have,

$$SI=\frac{P\times R\times T}{100}=\frac{P\times R\times2}{100}=\frac{P\times R}{50}$$

Now,

$$\frac{P\times R}{50}+72=\frac{P\times(R+3)\times2}{100}$$

$$\frac{P\times R}{50}+72=\frac{P\times R}{50}+\frac{3P}{50}$$

$$\frac{3P}{50}=72$$

$$P=1200$$

Thus, the sum is ₹1200.

Hence, option A is correct.

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