MATHEMATICS WORKSHEET – 03

Topic: Compound Interest **Marks:10**

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

Instructions:

- *Use the formula:*
- *Show proper steps for full marks.*
- *All questions are compulsory.*

Solved Example

1. Find the compound interest on ₹2,000 at 10% per annum for 2 years, compounded annually.

Formula:

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

Solution:

$$A = 2000\left(1 + \frac{10}{100}\right)^2$$

$$A = 2000(1.1)^2$$

$$A = 2000 \times 1.21 = ₹2,420$$

$$\text{Compound Interest} = A - P$$

$$= 2420 - 2000 = ₹420$$

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2. Find the amount when ₹1,200 is invested at 5% per annum for 2 years, compounded annually.

Given:

P = ₹1,200

R = 5% p.a.

n = 2 years

Solution:

$$A = 1200\left(1 + \frac{5}{100}\right)^2$$

$$A = 1200(1.05)^2$$

$$A = 1200 \times 1.1025 = \mathbf{₹1,323}$$

Practice Questions

1. *Find the compound interest on **₹1,000 at 10% per annum for 2 years**, compounded annually.*
2. *Find the amount on **₹2,000 at 5% per annum for 2 years**, compounded annually.*
3. *Calculate the compound interest on **₹800 at 8% per annum for 1 year**, compounded annually.*
4. *Find the amount when **₹1,500 is invested at 10% per annum for 1 year**, compounded annually.*
5. *Find the compound interest on **₹5,000 at 4% per annum for 2 years**, compounded annually.*
6. *Calculate the compound interest on **₹2,500 at 6% per annum for 2 years**, compounded annually.*
7. *Find the amount on **₹3,000 at 5% per annum for 2 years**, compounded annually.*

ALLTHE BEST 👍