Percent

Understanding Notes:

- "Percent" means per hundred. It is denoted by the symbol %.
- 1% means 1 part out of 100 parts.
- To convert a fraction into a percent, multiply the fraction by 100.
- To convert a percent into a fraction, divide the percent by 100 and simplify.
- Percentages are used to compare quantities easily.
- 100% represents the whole or complete quantity.
- Percent can be more than 100% in cases like growth, population increase, etc.
- Percent decrease or increase shows how much a quantity has reduced or increased.
- Percent is important in real–life situations like shopping discounts, tax, interest rates, exam scores, etc.

Important Points:

- Percent = $\frac{Given part}{Total value} \times 100.$
- To find how much a quantity represents in percentage, divide and multiply by 100.
- When percentage is more than 100, it means the quantity has increased.
- When percentage is less than 100, it means the quantity has decreased.
- Always simplify your answer wherever possible.

Different Types of Examples with Solutions:

Example (Easy – Fraction to Percent):

$$\succ$$
 Convert $\frac{4}{r}$ into a percent.

Solution: $\frac{4}{5} \times 100 = 80\%$

Example (Moderate – Percent to Fraction):

> Express 32% as a fraction in simplest form.

Solution: $\frac{32}{100} = \frac{8}{25}$

Example (Easy – Find a percentage of a quantity):

➢ Find 15% of 240.

Solution: $\frac{15}{100} \times 240 = 36$

Example (Moderate – Find quantity from given percent):

> 40% of a number is 50. Find the number.

Solution: Let the number be x

$$\frac{40}{100} \times x = 50$$
$$x = \frac{50 \times 100}{40}$$
$$x = 125$$

Example (Moderate – Find percentage increase):

> The price of a book increases from ₹200 to ₹250. Find the percent increase.

Solution: Increase = 250 – 200 = 50

Percent increase = $\left(\frac{50}{200}\right) \times 100 = 25\%$

Summary Points:

- Percent means per hundred (out of 100).
- Fraction × 100 = Percent.
- Percent ÷ 100 = Fraction.
- Increase or decrease can be calculated using Percent formula.
- Percent is commonly used in discounts, taxes, interests, and comparisons.