MATHEMATICS

PERCENTAGE AND ITS PERCENTAGE

CLASS-VI

PERCENTAGE

PERCENTAGE is one of the most commonly used mathematical concept in real life. This is simple concept with various concept with various applications. Hence, you are expected to be absolutely confirm with this concept. In order to increase your confirm levels, you will do well to keep calculating percentages mentally, whenever you get an opportunity to do so in real life

PERCENTAGE OF A NUMBER

- Percent means, per 100. here "cent" stand for 100 .
  To find the percentage of a number, convert the %age into fraction and multiply the resulting fraction with the number,

  e.g. 60% of 500 = $\dfrac{60}{100}$

TERMINOLOGY

- **COST PRICE** – The money paid by the shopkeeper to the manufacturer or whole seller to buy the goods is called the cost price(CP) of the goods purchased by the shopkeeper.

- **Selling Price (SP)** – The price at which the shopkeeper sells the goods is called the selling price (SP) of the goods sold by the shopkeeper.

NOTE- If an article is purchased for some amount and three are some additional expenses or transportation labor, commission etc., these are to be added in the cost price. Such expenses are called overhead expenses or overheads.

a. **Cost price (C.P.) > selling price (S.P.)**

b. **Cost price (C.P.) < selling price (S.P.)**

c. **Cost price (C.P.) = selling price (S.P.)**

as a result either you will have profit (p) or loss (L) or no profit or no loss

Profit & Loss can be defined in two ways

A. In term of absolute amount:
   suppose that if CP of an article is Rs.200 and SP is 300.
   so profit is SP-CP = 300-200 = 100.

B. In terms of percentage:
   wherever you want to calculate the prpofit & loss in terms of percentage, it is always calculated on the basic of CP. In the above example the profit is Rs. 100on CP of 200, so the profit % is 50%

IMPORTANT FORMULAE

Profit = SP-CP

Loss = CP – SP

Profit percentage $\text{Profit percentage} = \dfrac{Profit}{cost\ price} \times 100$

$$Loss\ percentage = \dfrac{Loss}{cost\ price} \times 100$$

$$SP = \left(\dfrac{100 + gain\%}{100} \times CP\right) = \left(\dfrac{100 - loss\%}{100} \times CP\right)$$

SIMPLE INTEREST

- *Definition:*

When at the time of returning the Loan to the Bank, we have to pay back an amount somewhat bigger than the Borrowed Loan amount. This additional amount is called as Simple Interest.

- *Factors of Simple Interest :*

Principle Amount

Rate of Interest

Time (Period) in Years

FORMULA

- **Simple Interest:**
- $SI = \dfrac{P * R * N}{100}$ Where,

P= Principal Amount (Rupees)

R= Rate of Interest (per cent per annum) (p.c.p.a)

N= No. of period (Years)

SI= Simple Interest (Rupees)

EX 1: FIND SIMPLE INTEREST

- Principal = Rs. 5000/-
- Rate of interest= 8p.c.p.a
- No. of years= 3 years
- Simple Interest= _____
- SI= $\frac{P*R*N}{100}$ = $\frac{5000*8*3}{100}$

$$SI = 1200/-$$

Ans: Simple Interest= Rs 1200/-

THANKU YOU