

## PROFIT & LOSS

### FACTS TO REMEMBER : PROFIT & LOSS

1. COST PRICE ( C.P. ) : The price at which the article is purchased
2. SELLING PRICE ( S.P. ) : The price at which article is sold
3. PROFIT / GAIN : When ( S.P. > C.P. ) , we get profit . [ Profit = S.P. - C.P. ]
4. LOSS : When ( S.P. < C.P. ) , we get loss. [ Loss = C.P. - S.P. ]
5. Profit or Loss is always reckoned on C.P.

$$6. \text{ Profit \%} = \frac{(\text{Profit} \times 100)}{\text{C.P.}} \quad \text{Loss \%} = \frac{(\text{Loss} \times 100)}{\text{C.P.}}$$

$$7. \frac{\text{S.P.}}{\text{C.P.}} = \frac{(100 + \text{Profit Percent})}{100} \quad \frac{\text{S.P.}}{\text{C.P.}} = \frac{(100 - \text{Loss Percent})}{100}$$

8. If cost price of 'x' articles is equal to selling price of 'y' articles , then profit percentage is

$$\frac{(x-y)}{y} \times 100$$

9. When two similar articles are sold, one at x% profit & other at x% loss, then the seller

$$\text{always incurs LOSS given by : Loss \%} = \frac{x^2}{100}$$

10. If a dealer / trader professes to sell his goods at cost price , but uses false weights,

$$\text{then Gain \%} = \frac{\text{Error}}{(\text{True value} - \text{error})} \times 100 \quad \%$$

OR

$$\text{Gain \%} = \frac{(\text{True weight} - \text{False weight})}{(\text{False weight})} \times 100 \quad \%$$

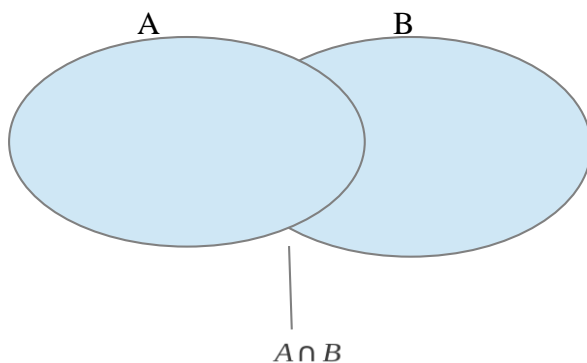
11. If a tradesman marks his goods at x% above his cost price and allows purchasers a discount

of y% for cash, then there is  $(x - y - \frac{xy}{100})$  % profit or loss according to +ve or -ve sign respectively.

## VENN DIAGRAM

### FACTS TO REMEMBER: SET THEORY – VENN DIAGRAM

The pictorial representation of Sets are called the Venn Diagrams



1.  $A - B$  : Set having those elements of A which are not in B, i.e. The Set A exclusively
2.  $B - A$  : Set having those elements of B which are not in A, i.e. The Set B exclusively
3.  $A \cap B$  : Set having the common elements of A & B
4.  $A \cup B$  : Set having all the elements of set A & B
5.  $n(A)$  : Represents the no. Of elements in set A
6.  $n(A \cup B) = n(B \cup A)$
7.  $n(A \cap B) = n(B \cap A)$
8.  $n(A - B) \neq n(B - A)$
9.  $n(A) = n(A - B) + n(A \cap B)$
10.  $n(B) = n(B - A) + n(A \cap B)$
11.  $n(A \cup B) = n(A) + n(B) - n(A \cap B)$  it is derived using the basic that  
$$n(A \cup B) = n(A - B) + n(B - A) + n(A \cap B)$$

