



## Types of Matrix:

- Unit Matrix (identity matrix) : A diagonal matrix whose all diagonal elements are equal to 1 is called identity matrix
- Unit matrix of order  $n$  is denoted by  $I_n$  ( $I$ ).

$I_n = [a_{ij}]_n$  such that

$$a_{ij} = 0, \forall i \neq j$$

$$a_{ij} = 1, \forall i = j$$

Example:

$$I_2 = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \quad I_3 = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$