

## (b) INTRINSIC PROTEINS :-

- Such Protein Partially or wholly remain embedded in Phospholipid.
- Such Protein can not be separated easily.
- It is 70% of the whole Protein.

## 4. FUNCTION OF PLASMA MEMBRANE:-

- It Provide definite shape to the cell
- Protect the cell by acting as a barrier.
- receives chemical messengers from other cells
- Acts as a receptor
- cell mobility, secretion and absorption of substances.

## TRANSPORT OF SUBSTANCE Across Membrane:-

- Transport of substance across the Plasma membrane is called Conduction.
- It is of two types :-
  - (a) ACTIVE TRANSPORT
  - (b) PASSIVE TRANSPORT

### (a) ACTIVE TRANSPORT:-

- occurs from lower concentration to higher concentration.
- During this type of transport energy is utilized.
- e.g. - Sodium Pump.

### (b) PASSIVE TRANSPORT:-

- It occurs from higher concentration to lower concentration

— During this type of transport energy is not utilized.

— Passive transport is of two types:—

i) Osmosis

ii) Diffusion

(i) Osmosis:—

— Osmosis always occurs through semi-permeable membrane.

— Osmosis is of two types:—

[A] Endosmosis

[B] Exosmosis

[A] Endosmosis:—

— It is the process in which water enters from surrounding medium into the cells.

— It is seen when cell is immersed in hypotonic solution.

[B] Exosmosis:—

— It is the process in which water goes out of the cell into surrounding medium.

— It is seen when cell immersed in hypertonic solution.

Notes:—

— If RBC is kept in a isotonic solution no osmosis takes place.

— If RBC is kept in hypotonic solution RBC Ruptures.

— If RBC is kept in hypertonic solution RBC becomes flaccid (weak).



- [Hypotonic Solution :- Outside of cell solution is very dilute and inside is concentrate cell gain water through osmosis called Hypotonic Solution.  
 (Cell has higher Concentration than Surrounding)  
 Hypertonic Solution :- Cell has lower Concentration than Surrounding is called Hypertonic Solution.  
 Isotonic Solution :- Both the medium has same Concentration called Isotonic Solution.]

## (ii) DIFFUSION :-

Diffusion is of two types -

a) ENDOCYTOSIS

b) EXOCYTOSIS

### a) ENDOCYTOSIS :-

- It is the process of engulfment of food particles in bulk, having size larger than the size of pore in the Plasma Membrane.

### i) PHAGOCYTOSIS :-

- It is the process of engulfment of large size solid food particles by the cell through plasma Membrane.

### ii) PINOCYTOSIS :-

- It is the process of ingestion of a fluid food material by the cell through Plasma Membrane.

### b) EXOCYTOSIS :-

- It is a process in which cell release out substance from it.  
 - Conduction of nerve impulse takes place through plasma membrane of nerve cell.

- Plasma membrane plays important role in recognition of various cells.  
e.g. - Macrophages engulfes only dead RBC.
- Cell organelles like E.R. nuclear membrane etc. develop from Plasma Membrane.
- The Microvilli of intestinal cells increases surface area of absorption so, rate of absorption increase.
- The site for cells recognition are located on the surface of Plasma Membrane.

Note: Salic acid is involved in cell recognition

- The antigenic property of a cells are located on the surface of Plasma Membrane
- Plasma membrane of Nerve fibre transmit nerve impulse.

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