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### **Lipid**

The lipid molecules are amphipathic in nature and are arranged within the membrane by the help of two types of ends. These are as follows

- (i) Polar Hydrophilic End This region is in the form of (water loving) head, which faces towards the outer sides of the cell membrane to interact with the aqueous environments on both sides.
- (ii) Non-polar Hydrophobic End This region is in the form of (water repelling) tail, both ends of which faces each other that occur towards the centre of the cell membrane.

The proportion of lipid molecules varies in plasma membrane of different cell types. These are formed of cholesterol (25-32%) and mainly of phospho- glycerides or phospholipids (55-75%). Outside of cell Phosphatidylcholine

### **Proteins**

Depending upon the ease of extraction, the ratio of protein and lipid varies considerably in different cell types. In human beings, the membrane of the erythrocytes (RBCs) has approximately 52% protein and 40% lipid.

#### **The membrane proteins can be classified as**

- (i) Integral Proteins (intrinsic protein) They have stronger association and bound firmly to the membrane. These proteins are buried partially or totally in the phospholipid bilayer.
- (ii) Peripheral Proteins (extrinsic protein) They have weaker association and are bound to lipids of membrane by electrostatic interactions.

### **Carbohydrates**

These constitute about 1-5% of chemical composition of plasma membrane. These are associated with the phospholipids or with the peripheral proteins to form glycolipids and glycoproteins respectively.

To understand the structure of plasma membrane various models are given out of which the most accepted model is Fluid Mosaic Model.