

Cell membrane or plasma membrane is generally found existing in all the cells which distinguish the inside of the cell from its exterior. In plant and bacterial cells, the cell wall is found fastened to the plasma membrane on its exterior surface. This membrane checks the transportation of particles which enter and exit the cell and comprises a lipid bilayer which in nature is semipermeable.

1. This is not the function of plasma membrane

- (a) Energy transduction
- (b) Intercellular interactions
- (c) Responding to external stimuli
- (d) Assisting in chromosome segregation

Answer: (d)

2. In the plasma membrane, carbohydrates

- (a) always faces outwards, towards extracellular space
- (b) directed to all sides in the membrane randomly
- (c) always faces to the lumen of cells
- (d) always faces inward to the nonpolar portion of the membrane

Answer: (a)

3. In the plasma membrane, Glycolipids are usually situated in

- (a) cannot be predicted, it varies according to the cell types
- (b) inner leaflet of the plasma membrane
- (c) the outer leaflet of the plasma membrane
- (d) evenly distributed in both outer and inner leaves of plasma membrane

Answer: (c)

4. The major interaction responsible for stabilizing plasma membrane

- (a) hydrophobic interactions
- (b) hydrophilic interactions
- (c) covalent bonds
- (d) ionic bonds

Answer: (a)

5. In the plasma membrane, lipid molecules are arranged in

- (a) head parallel
- (b) alternate
- (c) scattered
- (d) series

Answer: (a)

6. Ion carriers are located in

- (a) Plasma membranes
- (b) Cell wall
- (c) Nucleus
- (d) Cellular space

Answer: (a)

7. In the plasma membrane, the best method to study the properties of integral membrane proteins is

- (a) atomic force microscopy
- (b) freeze-fracture analysis and electron microscopy
- (c) cryo-sectioning and electron microscopy
- (d) all of the above

Answer: (b)

8. In the plant cell, this layer is present nearest to the plasma membrane

- (a) Tonoplast
- (b) Middle lamella
- (c) secondary wall
- (d) primary wall

Answer: (c)

9. Beetroot, if kept in cold water, anthocyanin does not come out due to plasma membrane

- (a) Dead
- (b) differentially permeable
- (c) permeable to anthocyanins
- (d) Impermeable to anthocyanins

Answer: (d)

10. Plasma membrane is made up of

- (a) A protein, a lipid and a cellulose layer
- (b) Bimolecular lipid layer surrounded by protein layers
- (c) A protein layer between two lipid layers
- (d) A lipid layer between two protein layers

Answer: (b)