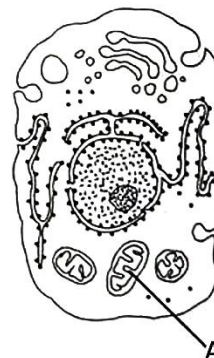




1. Vacuole in a plant cell [AIPMT (Prelims)-2008]
 - (1) Lacks membrane and contains water and excretory substances
 - (2) Is membrane-bound and contains storage proteins and lipids
 - (3) Is membrane-bound and contains water and excretory substances
 - (4) Lacks membrane and contains air
2. Keeping in view the 'fluid mosaic model' for the structure of cell membrane, which one of the following statements is correct w.r.t. the movement of lipids and proteins from one lipid monolayer to the other (described as flip-flop movement)? [AIPMT (Prelims)-2008]
 - (1) Neither lipids nor proteins can flip-flop
 - (2) Both lipids and proteins can flip-flop
 - (3) While lipids can rarely flip-flop, proteins cannot
 - (4) While proteins can flip-flop, lipids cannot
3. The two sub-units of ribosome remain united at a critical ion level of [AIPMT (Prelims)-2008]
 - (1) Calcium
 - (2) Copper
 - (3) Manganese
 - (4) Magnesium
4. Which one of the following is not a constituent of cell membrane? [AIPMT (Prelims)-2007]
 - (1) Phospholipids
 - (2) Cholesterol
 - (3) Glycolipids
 - (4) Proline
5. Select the wrong statement from the following: [AIPMT (Prelims)-2007]
 - (1) The chloroplasts are generally much larger than mitochondria
 - (2) Both chloroplasts and mitochondria contain an inner and an outer membrane
 - (3) Both chloroplasts and mitochondria have an internal compartment, the thylakoid space bounded by the thylakoid membrane
 - (4) Both chloroplasts and mitochondria contain DNA.
6. Which of the following statements regarding mitochondrial membrane is not correct? [AIPMT (Prelims)-2006]
 - (1) The outer membrane is permeable to all kinds of molecules
 - (2) The enzymes of the electron transfer chain are embedded in the outer membrane
 - (3) The inner membrane is highly convoluted forming a series of infoldings
 - (4) The outer membrane resembles a sieve
7. Protein synthesis in an animal cell occurs [AIPMT (Prelims)-2005]
 - (1) Only on the ribosomes present in cytosol
 - (2) On ribosomes present in cytoplasm as well as in mitochondria
 - (3) Only on ribosomes attached to the nuclear envelope and endoplasmic reticulum
 - (4) On ribosomes present in the nucleolus as well as in cytoplasm
8. According to widely accepted "fluid mosaic model" cell membranes are semi-fluid, where lipids and integral proteins can diffuse randomly. In recent years, this model has been modified in several respects. In this regard, which of the following statements is incorrect? [AIPMT (Prelims)-2005]
 - (1) Proteins in cell membranes can travel within the lipid bilayer
 - (2) Proteins can remain confined within certain domains of the membrane
 - (3) Proteins can also undergo flip-flop movements in the lipid bilayer
 - (4) Many proteins remain completely embedded within the lipid bilayer
9. Why is a capsule advantageous to a bacterium?
 - (1) It allows the bacterium to attach to the surface
 - (2) It protects the bacterium from desiccation
 - (3) It provides means of locomotion
 - (4) It allows bacterium to hide from host's immune system



- 10.** Which one of the following organisms is not an example of eukaryotic cells?
(1) *Amoeba proteus* (2) *Paramoecium caudatum*
(3) *Escherichia coli* (4) *Euglena viridis*
- 11.** In chloroplasts, chlorophyll is present in the
(1) Outer membrane (2) Inner membrane
(3) Thylakoids (4) Stroma
- 12.** Microtubules are absent in
(1) Mitochondria (2) Flagella
(3) Spindle fibres (4) Centrioles
- 13.** Flagella of prokaryotic and eukaryotic cells differ in
(1) Type of movement and placement in cell
(2) Location in cell and mode of functioning
(3) Microtubular organization and type of movement
(4) Microtubular organization and function
- 14.** In prokaryotes, the genetic material is
(1) Linear DNA without histones
(2) Circular DNA without histones
(3) Linear DNA with histones
(4) Circular DNA with histones
- 15.** Which one of the following structures between two adjacent cells is an effective transport pathway?
(1) Plasmalemma
(2) Plasmodesmata
(3) Plastoquinones
(4) Endoplasmic reticulum
- 16.** The Golgi apparatus
(1) Is found only in animals
(2) Is found in prokaryotes
(3) Is a site of rapid ATP production
(4) Modifies and packages proteins
- 17.** Which one of the following organelles is located near the nucleus and contains a collection of flattened membrane bound cisternae?
(1) Nucleolus
(2) Mitochondrion
(3) Centriole
(4) Golgi apparatus
- 18.** Select the alternative giving correct identification and function of the organelle 'A' in the diagram



- (1) Endoplasmic reticulum-synthesis of lipids
(2) Mitochondria-produce cellular energy in the form of ATP
(3) Golgi body-provides packaging material
(4) Lysosomes - secrete hydrolytic enzymes



ANSWER KEY

1. (3)
2. (3)
3. (4)
4. (4)
5. (3)
6. (2)
7. (2)
8. (3)
9. (4)

10. (3)
11. (3)
12. (1)
13. (3)
14. (2)
15. (2)
16. (4)
17. (4)
18. (2)



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