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CLASS XI : SUB: BIOLOGY CH-8 CELL MCQS

1. Which among the following is incorrect about types of cells?
   a) In a prokaryotic cell membrane-bound organelles are absent
   b) Monera is an example of prokaryotic cell
   c) Eukaryotic cells contain membrane-bound organelles
   d) **Prokaryotic cells contain either RNA or DNA**
2. Which among the following statements is incorrect about plasma membrane?
   a) Plasma membrane is a selectively permeable membrane and allows only those particles that protect the cell
   b) Movement of air and water takes place through diffusion and osmosis respectively
   c) Osmosis and diffusion are examples of active transport
   d) Active transport takes place through use of energy
3. Which among the following is incorrect about the structure of plasma membrane?
   a) Plasma membrane is made of lipids and proteins
   b) Lipids with hydrophobic and hydrophilic end are called amphipathic lipids
   c) The plasma membrane is a lipid bilayer membrane
   d) The proteins that are present on the surface of the plasma membrane are called integral proteins
4. Which among the following is incorrect about endoplasmic reticulum?
   a) These are complex network of membrane bounded tubules
   b) They are classified as smooth and rough endoplasmic reticulum
   c) Smooth endoplasmic reticulum has ribosomes attached to their surface and acts as site of protein synthesis
   d) Rough endoplasmic reticulum is connected by nuclear membrane at one end and golgi apparatus on the other end
5. Which of these is the main component of the middle lamella?
   a) Calcium phosphate
   b) Calcium silicate
   c) Calcium carbonate
   d) Calcium pectate
6. What is the function of plasmodesmata in plants?
   a) Protecting the cells from mechanical stresses
   b) Providing shape to the cells
   c) Connecting the cytoplasm of adjacent cells
   d) Joining two adjacent plant cell walls
7. Select the mismatch:

(1) Gas vacuoles – Green Bacteria
(2) Large central vacuoles – Animal cells
(3) Protists – Eukaryotes
(4) Methanogens – Prokaryotes

8. A cell organelle containing hydrolytic enzymes is

(1) Lysosome
(2) Microsome
(3) Ribosome
(4) Mesosome

9. Mitochondria and chloroplast are

a) Semi-autonomous organelles

b) Formed by division of the pre-existing organelles and they contain DNA but lack protein synthesizing machinery

10. Which one of the following options is correct?

(1) Both (a) and (b) are correct

(2) Both (a) and (b) are false

(3) (b) is true but (a) is false

(4) (a) is true but (b) is false

11. Which of the following are not membrane bound organelles in eukaryotes

(1) Mesosome

(2) Vacuoles

(3) Ribosome

(4) Lysosome

12. Cellular organelles with membranes are

(1) Lysosome, Golgi apparatus and mitochondria

(2) Nuclei, ribosomes and mitochondria

(3) Chromosomes, ribosomes and ER

(4) ER, ribosomes and Nuclei

13. Match the columns and identify the correct option

Column I	Column II
(a) Thylakoids	(i) Disc shaped sacs of Golgi apparatus
(b) Cristae	(ii) Condensed structure of DNA
(c) Cisternae	(iii) Flat membranous sacs in stroma
(d) Chromatin	(iv) Infoldings in mitochondria

(1) a(iii), b(iv), c(ii), d(i)

(2) a(iv), b(iii), c(i), d(ii)

(3) a(iii), b(iv), c(i), d(ii)

(4) a(iii), b(1), c(iv), d(ii)

14. Nuclear envelop is a derivative of

(1) RER

(2) SER

(3) Membrane of Golgi complex

(4) Microtubules

15. . The chromosome in which centromere is located close to one end are

(1) Sub-metacentric

(2) Metacentric

(3) Acrocentric

(4) Telocentric

16Which structure performs the function of mitochondria in bacteria

(1) Nucleoid

(2) Ribosomes

(3) Cell wall

(4) Mesosome

17. .Match the following and select the correct answer

Column I	Column II

a. Centriole	(i) Infoldings in mitochondria
b. Chlorophyll	(ii) Thylakoids
c. Cristae	(iii) Nucleic acids
d. Ribozymes	(iv) Basal Bodies, cilia or flagella

(1) a(iv), b(ii), c(i), d(iii)
(2) a(i), b(ii), c(iv), d(iii)
(3) a(i), b(iii), c(ii), d(iv)
(4) a(iv), b(iii), c(i), d(ii)

18. Golgi complex plays a major role
(1) In digesting proteins and carbohydrates
(2) As energy transferring organelle
(3) In post translational modification of proteins and glycosidation of lipids
(4) In trapping the light and transforming it into chemical energy

19. Select the correct statement from the following regarding cell membrane
(1) Lipids are arranged in a bilayer with polar heads towards the innerpart
(2) Fuid mosaic model of cell membrane was proposed by Singer and Niclson
(3) Na^+ and K^+ move across the cell membrane by passive transport
(4) Proteins make up 60-70% of the cell membrane

20. What is true about ribosomes
(1) These are found only in eukaryotic cells
(2) These are self-splicing introns of some RNAs
(3) The prokaryotic ribosomes are 80S, where "S" stands for sedimentation coefficient
(4) These are composed of ribonucleic acid and proteins

21. Ribosomal RNA is actively synthesized in
(1) Nucleoplasm
(2) Ribosomes
(3) Lysosomes
(4) Nucleolus

22. Important site for the formation of glycoproteins and glycolipids is
(1) Ribosomes
(2) Vacuoles
(3) Golgi apparatus
(4) Plastids

23. Plasmodesmata are
(1) Locomotory structures
(2) Membranes connecting the nucleus with plasma lemma
(3) Connections between adjacent cells
(4) Lignified cemented layers between the cells

24. Select the wrong statement from the following
(1) The chloroplasts are generally much larger than mitochondria
(2) Both chloroplast and mitochondria contain an inner and outer membrane
(3) Both chloroplast and mitochondria have an internal compartment, the thylakoid space bounded by the thylakoid membrane
(4) Both chloroplast and mitochondria contain DNA

25. The term "Glycocalyx" is used for
(1) A layer surrounding the cell wall of bacteria
(2) A layer present between cell wall and membrane of bacteria
(3) Cell wall of bacteria
(4) Bacterial cell genetically engineered to possess N-glycosylated proteins