

EXERCISE

- Which structure determines the shape of the cell and provides a strong structural support to prevent the bacterium from bursting?
 - (1) Slime layer
 - (2) Capsule
 - (3) Cell membrane
 - (4) Cell wall
- Who observed few living cells capable of moving, such as bacteria, protozoa, spermatozoa and red blood corpuscles under his own designed microscope?
 - (1) Aristotle
 - (2) Robert Hooke
 - (3) Leeuwenhoek
 - (4) Purkinje
- Cells that have membrane bound nucleus includes
 - (1) *Rhizobium*
 - (2) Meristem
 - (3) Mature sieve tube
 - (4) *Nostoc*
- The semifluid nature of the biomembrane
 - (1) Helps in quick repair
 - (2) Provides dynamic nature
 - (3) Gives semipermeable nature
 - (4) More than one option is correct
- Intercellular matrix or common layer between the primary walls of adjacent cells is
 - (1) Middle lamella
 - (2) Primary wall
 - (3) Secondary wall
 - (4) Periplasmic space
- Endomembrane system of cell includes
 - (1) Golgi complex
 - (2) Lysosome and vacuoles
 - (3) ER
 - (4) All of these
- Agranular ER of muscle cells is also called as
 - (1) Sarcoplasmic reticulum
 - (2) Nissl's granules
 - (3) Desmotubules
 - (4) Dictyosome
- RER is found abundantly in those cells which are actively involved in
 - (1) Protein synthesis
 - (2) Lipid synthesis
 - (3) Steroidal hormones synthesis
 - (4) Glycogen metabolism
- Which face of golgi complex gives rise to the secretory vesicles?
 - (1) Trans face
 - (2) Proximal face
 - (3) Convex face
 - (4) Cis face
- Polymorphic cell organelle is
 - (1) Vacuole
 - (2) Lysosome
 - (3) Golgi bodies
 - (4) Endoplasmic reticulum

11. Inner mitochondrial membrane is different from outer mitochondrial membrane in presence of
- (1) Less protein and more lipid
 - (2) Cristae
 - (3) Porins and cholesterol
 - (4) Porins and cardiolipin
12. Which of the following feature is **not** associated with mitochondria?
- (1) Circular nucleic acid
 - (2) Elementary particles in matrix
 - (3) 70S ribosomes
 - (4) Division through fissions
13. Which one of the following plastid is involved in storage of proteins in maize?
- (1) Chromoplast
 - (2) Chloroplast
 - (3) Amyloplast
 - (4) Aleuroplast
14. Which of the following cell organelles is concerned with photophosphorylation?
- (1) Mitochondria
 - (2) Plastochondria
 - (3) Chloroplast
 - (4) More than one option is correct
15. Many ribosomes may associate with one mRNA to form
- (1) Polyhedral bodies
 - (2) Ergasome or Polysome
 - (3) Nucleosome
 - (4) Plastidome

16. Which one of the following function is **not** associated with microtubules?
- (1) Help in anaphasic movement of chromosomes
 - (2) Form the cytoskeleton of cilia and flagella
 - (3) Help in pseudopodia formation
 - (4) Spindle and astral ray formation
17. Centrioles have
- (1) 9 + 2 arrangement of microtubules
 - (2) 9 peripheral doublet microtubules
 - (3) 2 centrally located microtubules
 - (4) An organisation like the cart wheel
18. In flagella and cilia, the number of doublets present in the peripheral region of axoneme are
- (1) 18
 - (2) 20
 - (3) 9
 - (4) 2
19. The interdoublet links in eukaryotic flagellum are made up of a protein called
- (1) Nexin
 - (2) Dynein
 - (3) Flagellin
 - (4) Actin
20. Match the column I with column II

Column I

- a. Fat storage
 - b. Cilia
 - c. Mitochondria
 - d. Microfilaments
- (1) a(ii), b(i), c(iv), d(iii)
 - (3) a(iii), b(i), c(iv), d(ii)

Column II

- (i) Tubulin
 - (ii) Elaioplast
 - (iii) Contractile
 - (iv) Oxysomes
- (2) a(ii), b(i), c(iii), d(iv)
 - (4) a(i), b(ii), c(iv), d(iii)

21. Karyotheca or nuclear membrane is absent in
 (1) *Nostoc* (2) *Rhizobium*
 (3) *Drosophila* (4) Both (1) & (2)
22. Nucleolus is
 (1) Dense acidophilic body (2) Present in cytoplasm
 (3) Spherical, colloidal and basophilic body (4) Is a membrane bound structure
23. Lightly stained region of chromatin during interphase is
 (1) Genetically inactive (2) Highly condensed region
 (3) Rich in loosely packed DNA (4) Rich in tightly packed DNA
24. Choose odd one out w.r.t. nuclear membrane.
 (1) Inner membrane is smooth
 (2) Cytoplasmic surface of nuclear envelope may bear ribosomes
 (3) Outer membrane bears 70S ribosomes
 (4) Perinuclear space is 10 to 50 nm
25. Kinetochore is associated with
 (1) Primary constriction (2) Secondary constriction
 (3) Satellite (4) More than one option is correct
26. How many SAT-chromosomes are present in human diploid cell?
 (1) 23 pairs (2) 5 pairs
 (3) 10 pairs (4) 3 pairs
27. Find the **incorrect** match
 (1) Allosomes – Sex chromosomes
 (2) Lampbrush chromosomes – Diplotene bivalents
 (3) Polytene chromosomes – Oocytes of amphibians
 (4) Sub-metacentric chromosome – L-shaped chromosome
28. Mark the **correct** option w.r.t. Informosomes.
 (1) mRNA + ribosomes (2) mRNA + protein
 (3) DNA + protein (4) Polyribosomes

29. Organelle involved in light dependent respiration in plant is
- | | |
|------------------|-----------------|
| (1) Sphaerosomes | (2) Glyoxysomes |
| (3) Peroxisomes | (4) Lysosomes |
30. Isobrachial chromosomes are
- | | |
|---------------------|-----------------|
| (1) Acrocentric | (2) Telocentric |
| (3) Sub-metacentric | (4) Metacentric |