



- Reserve material in prokaryotic cells is stored in the cytoplasm in the form of non-membranous _____ and these are _____.
 (1) Reserve vacuoles; phosphate granules, cyanophycean granules and glycogen granules
 (2) Inclusion bodies; phosphate granules, protein and glucose
 (3) Inclusion bodies; phosphate granules, cynophycean granules and glycogen granules
 (4) Gas vacuoles; sulphur granules, glycogen and protein
- Algal cell wall is made up of
 (a) Cellulose
 (b) Mannans and galactans
 (c) CaCO_3
 (1) Only (a) (2) Only (a) & (b)
 (3) Only (b) & (c) (4) All (a), (b) & (c)
- The connecting layer of cell wall of adjacent cells in plant is
 (1) Primary wall (2) Secondary wall
 (3) Middle lamella (4) Tertiary wall
- The longest portion of a bacterial flagellum is
 (1) Hook (2) Basal body
 (3) Filament (4) Pili
- Match the columns and select the correct option

	Column-I		Column-II
A.	Protects the cell from loss of water and nutrients	(i)	Pili
B.	Involved in mating Process	(ii)	Slime layer
C.	Small bristle like fibres for attachment to a substratum	(iii)	Capsule
D.	Thick and tough covering	(iv)	Fimbriae

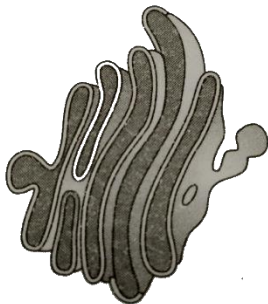
 (1) A-(iii), B-(ii), C-(i), D-(iv)
 (2) A-(ii), B-(i), C-(iv), D-(iii)
 (3) A-(iii), B-(i), C-(ii), D-(iv)
 (4) A-(i), B-(ii), C-(iii), D-(iv)
- The correct order of bacterial cell envelope from outside to inside
 (1) Cell wall → glycocalyx → Plasma membrane
 (2) Plasma membrane → glycocalyx → cell wall
 (3) Glycocalyx → cell wall → cell membrane
 (4) Glycocalyx → Plasma membrane → cell wall
- The shape of bacterial cell is determined by
 (1) Capsule (2) Slime layer
 (3) Cell wall (4) Glycocalyx
- Chromatophores are
 (1) Membranous extension
 (2) Found in photosynthetic prokaryotes
 (3) Both (1) & (2)
 (4) Structures with respiratory enzyme
- Which part of the cell wall is chiefly made up of calcium pectate?
 (1) Primary cell wall (2) Secondary cell wall
 (3) Tertiary cell wall (4) Middle lamella
- Which among the following cell organelles is/are without any membrane boundary?
 (1) Golgi complex
 (2) Centrioles and centrosome
 (3) Ribosome
 (4) Both (2) & (3)
- 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



- 13.** Cells that have membrane bound nucleus includes
(1) *Rhizobium*
(2) Meristem
(3) Mature sieve tube
(4) *Nostoc*
- 14.** The main chemical component of fungal cell wall is
(1) Peptidoglycan (2) Chitin
(3) Hemicellulose (4) Pectin
- 15.** Which of the following statement is incorrect?
(1) Middle lamella is chiefly made up of calcium and magnesium pectate
(2) Secondary cell wall is found in harder woody parts of a plant
(3) Plasmodesmata are cytoplasmic bridges that connect the neighbouring plant cells
(4) Secondary wall is formed on the outer side of the cell
- 16.** Arrange the different layers of plant cell wall A, B and C from outside to inside
A. This layer is capable of growth and diminishes gradually as the cell matures
B. Formed towards membrane side of the cell
C. This layer holds or glues different neighbouring cells together
(1) $B \rightarrow C \rightarrow A$ (2) $C \rightarrow A \rightarrow B$
(3) $A \rightarrow B \rightarrow C$ (4) $B \rightarrow A \rightarrow C$
- 17.** 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
- 18.** Which face of golgi complex gives rise to the secretory vesicles?
(1) Trans face (2) Proximal face
(3) Convex face (4) Cis face
- 19.** A cell organelle 'X' is divided into two types on the basis of a cell organelle 'Y', that helps in the protein synthesis. Identify 'X' and 'Y' respectively
(1) Golgi complex and ribosome
(2) ER and mitochondria
(3) ER and ribosome
(4) Lysosome and ER
- 20.** The surface of RER has
(1) Lysosomes (2) Ribosomes
(3) Golgi complex (4) Plastids
- 21.** Which of the following statement is incorrect w.r.t. Golgi apparatus?
(1) It is non-membrane bound organelle
(2) It is composed of flattened sacs called cisternae
(3) Cisternae resemble with SER
(4) Golgi apparatus has two faces-*cis* and *trans*
- 22.** Which of the following is common to both ER and Golgi complex?
(1) Both are double membrane bound
(2) Both have cisternae
(3) Both contain their own DNA
(4) Both are semi-autonomous organelles
- 23.** A number of proteins synthesised by ribosomes present on the ER are transferred to
(1) Vacuoles
(2) Lysosomes
(3) Plastids
(4) Golgi apparatus
- 24.** The type of ribosomes found inside the mitochondria is
(1) 90S (2) 60S
(3) 80S (4) 70S
- 25.** The names of different cell organelles / structures are given below -
Mitochondria, Cell wall, Ribosomes, Centrioles, Microbodies, Plastids, Endoplasmic Reticulum
How many of the above are present in both higher plant and animal cells?
(1) 3 (2) 4
(3) 5 (4) 6
- 26.** Select the correct combination of the statements regarding the characteristics of middle lamella
a. It holds the different neighbouring cells together.
b. It is composed of Mg pectate only.
c. It gets dissolved during ripening of fruits.
Correct statements is/are
(1) a & c (2) b & c
(3) Only a (4) a, b & c



27. Study the organelle given below and identify its function



- (1) It is a site for formation of glycoproteins and glycolipids
(2) Site for synthesis of steroidal hormone
(3) These have enzymes that are capable of digesting carbohydrates, proteins, lipids and nucleic acids
(4) It divides intracellular space into two distinct compartments, i.e., luminal and extra luminal cytoplasm
28. Which of the following cell organelles is present in the highest number in secretory cells?
[NEET - 2019 (Odisha)]
(1) Lysosome (2) Mitochondria
(3) Golgi complex (4) Endoplasmic reticulum
29. The concept of “Omnis cellula-e cellula” regarding cell division was first proposed by [NEET - 2019]
(1) Rudolf Virchow
(2) Theodor Schwann
(3) Schleiden
(4) Aristotle
30. The Golgi complex participates in [NEET - 2018]
(1) Fatty acid breakdown
(2) Formation of secretory vesicles
(3) Activation of amino acid
(4) Respiration in bacteria
31. Cellular organelles with membranes are [Re-AIPMT-2015]
(1) Lysosomes, Golgi apparatus and mitochondria
(2) Nuclei, ribosomes and mitochondria
(3) Chromosomes, ribosomes and endoplasmic reticulum
(4) Endoplasmic reticulum, ribosomes and nuclei

32. Cell wall is absent in [Re-AIPMT-2015]
(1) *Nostoc*
(2) *Aspergillus*
(3) *Funaria*
(4) *Mycoplasma*
33. A protoplast is a cell [Re-AIPMT-2015]
(1) Without cell wall
(2) Without plasma membrane
(3) Without nucleus
(4) Undergoing division
34. Chromatophores take part in : [Re-AIPMT-2015]
(1) Respiration
(2) Photosynthesis
(3) Growth
(4) Movement
35. The structures that help some bacteria to attach to rocks and /or host tissues are : [Re-AIPMT-2015]
(1) Holdfast
(2) Rhizoids
(3) Fimbriae
(4) Mesosomes
36. Select the correct matching in the following pairs [AIPMT-2015]
(1) Rough ER - Oxidation of fatty acids
(2) Smooth ER - Oxidation of phospholipids
(3) Smooth ER - Synthesis of lipids
(4) Rough ER - Synthesis of glycogen
37. Which one of the following is not an inclusion body found in prokaryotes? [AIPMT-2015]
(1) Polysome
(2) Phosphate granule
(3) Cyanophycean granule
(4) Glycogen granule
38. Which structures perform the function of mitochondria in bacteria? [AIPMT-2014]
(1) Nucleoid
(2) Ribosomes
(3) Cell wall
(4) Mesosomes

ANSWER KEY

1. (3)
2. (4)
3. (3)
4. (3)
5. (2)
6. (3)
7. (3)
8. (3)
9. (4)
10. (4)
11. (4)
12. (3)
13. (2)
14. (2)
15. (4)
16. (2)
17. (1)
18. (1)
19. (3)

20. (2)
21. (1)
22. (2)
23. (4)
24. (4)
25. (2)
26. (1)
27. (1)
28. (3)
29. (1)
30. (2)
31. (1)
32. (4)
33. (1)
34. (2)
35. (3)
36. (3)
37. (1)
38. (4)

