

CELL ORGANELLES

1. **Cell theory is proposed by**
 1. Rudolf Virchow
 2. Leeuwenhoek
 3. Schleiden and Schwann
 4. Robert Brown
2. **Non-membrane bound cell organelle found in a living cell**
 - A. Ribosome
 - B. Lysosome
 - C. Centriole
 - D. Chromosome
 1. A & B
 2. A & C
 3. B & C
 4. A, C & D
3. **Arrangement of the lipids in cell membranes**
 1. In one layer hydrophilic ends towards outside
 2. In one layer hydrophilic ends towards inside
 3. In one layer hydrophobic ends towards outside
 4. In a double layer both hydrophobic ends are outside
4. **Fluid Mosaic model proposed by**
 1. . Rudolf Virchow
 2. Leeuwenhoek
 3. Schleiden and Schwann
 4. Singer and Nicolson
5. **Carrier proteins in the membranes are required for the transport of**
 1. Non-polar molecules
 2. Polar molecules
 3. Water
 4. Gases
6. **Cell walls of algae contain**
 - A. Cellulose
 - B. Hemi cellulose
 - C. Galactans
 - D. Mannans
 1. A, B, C
 2. B, C, D
 3. A, C, D
 4. A, B, D
7. **In living plant cells intercellular transport is facilitated by**
 1. Plasmodesmata
 2. Pits
 3. ER
 4. Cytoskeleton
8. **Chemical substance present in middle lamellum is**
 1. Galactans
 2. Hemi cellulose
 3. Pectins
 4. Suberin
9. **Chemical present only in secondary walls is**
 1. Cutin
 2. Lignin
 3. Cellulose
 4. Pectins
10. **Assertion A: Mitochondria, chloroplasts are not considered as endomembrane system**

Reason R: Their functions are independent of other cell organelles

 - 1) Both A and R are correct and R is the correct explanation of A.
 - 2) Both A and R are correct but R is not the correct explanation of A.
 - 3) A is true, R is false
 - 4) A is false, R is true.

11. Functions of the Endoplasmic reticulum

1. Lipid synthesis 2. Protein synthesis 3. Protection 4. Division of cell

12. Arrangement of Golgi complex with nuclear membrane is with

1. Trans face towards nucleus 2. Cis face away from nucleus
3. Trans face away from nucleus 4. Either cis or trans towards nucleus

13. Single membrane cell organelle

1. Ribosome 2. Mitochondria 3. Lysosome 4. ER

14. Steroidal hormones are synthesized by

1. Golgi 2. ER 3. Lysosome 4. Peroxysome

15. True statement regarding Golgi complex

- I. It helps in the cell wall formation
II. It helps in intracellular transport
III. It is a site of glycoprotein and glycolipid synthesis
IV. It synthesizes steroidal hormones in animal cells

1. I & II 2. II & III 3. III & IV 4. I & III

16. Function of Lysosome is

1. Digestion 2. Oxidation 3. Hydrolysis 4. Packaging

17. Anthocyanin pigments are found in/ on

1. Chloroplast 2. Vacuole 3. Aleuroplast 4. Thylakoids

18. True statement among the following

- I. Contractile vacuoles are present in plants
II. Function of vacuoles in plant is excretion
III. Vacuole is bounded by single membrane
IV. Vacuole store food material

1. I & II 2. II & III 3. Only III 4. III & IV

19. Sausage shaped cell organelle is

1. Mitochondria 2. Plastids 3. Golgi 4. ER

20. Assertion A : Concentrations of ions in cell sap is more than cytoplasm

Reason R : Digestion of food takes place in cell sap

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21. Type of ribosomes found in eukaryotic cells

1. 70S 2. 80S 3. 70S & 80S 4. 70S or 80S

22. **Prokaryotic like characters in mitochondria is**
1. Cell division 2. Genome 3. Inner membrane 4. All the above
23. **Plastids seen in cotyledons of *Arachis* are**
1. Chloroplasts 2. Elaioplasts 3. Amyloplasts 4. Aleuoplasts
24. **Plant leaves show**
1. Chloroplasts 2. Chromoplasts 3. Leucoplasts 4. All the above
25. **Cell organelle within another cell organelle is**
1. Vescicle 2. Ribosome 3. Lysosome 4. Plastids
26. **Sub units of 70S ribosome**
1. 50S and 30S 2. 50S and 20S 3. 40S and 30S 4. 60S and 40S
27. **Location of ribosomes in eukaryotic cells is**
A. Cytoplasm B. Attached to ER
C. Inside mitochondria D. Inside chloroplasts
1. A & B 2. B & C 3. B, C & D 4. A, B, C & D
28. **Function that is not of cytoskeleton**
1. Protection 2. Cell motility
3. Signaling across the cell 4. Nuclear division
29. **Centrosome consisting of**
1. 9+2 pattern microtubules 2. Two centrioles
3. 9 peripheral tubules 4. Three basal bodies
30. **Assertion A : In cells that are carrying out protein synthesis have larger and more nuclei**
Reason R : Ribosomal RNA synthesis, responsible for protein synthesis, takes place in nucleolus
1) Both A and R are correct and R is the correct explanation of A.
2) Both A and R are correct but R is not the correct explanation of A.
3) A is true, R is false
4) A is false, R is true.
31. **Acidity of DNA is neutralized by**
1. Histones 2. RNA 3. Non-histone proteins 4. Ribonucleoproteins

- 32. Nucleus is covered by**
1. Single membrane
 2. Double membrane
 3. Double membrane with pores
 4. Double membrane with pores only in outer membrane.
- 33. Total number of microtubules in a centriole is**
- 1) 11
 - 2) 27
 - 3) 20
 - 4) 22
- 34. Mature plant cell without a nucleus is**
1. Erythrocyte
 2. Sieve cell
 3. Synergid
 4. All the above
- 35. Each chromosome is made up of**
1. Two DNA molecules
 2. One DNA molecule
 3. Many DNA molecules
 4. Four DNA molecules
- 36. Chromosome with only one arm is**
1. Metacentric
 2. Acrocentric
 3. Telocentric
 4. Sub metacentric
- 37. Portion of the chromosome beyond secondary constriction is**
1. Satellite
 2. Arm
 3. Kinetochore
 4. Centromere
- 38. Each nucleosome consisting of**
- 1) 8 histone proteins
 2. 4 histone proteins
 3. 3 histone proteins
 4. Many histone proteins
- 39. Length of the DNA that coils round the nucleosome is**
1. 1000 kbps
 2. 10 bps
 3. 200 bps
 4. 146 bps
- 40. Histone protein which is not a part of nucleosome core**
1. H₁
 2. H_{2A}
 3. H_{2B}
 4. H₃

Cell Organelles--Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3	2	1	4	2	3	1	3	2	1	1	3	3	2	4	3	2	3	1	3
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
3	4	2	4	2	1	4	1	2	1	1	3	2	2	1	3	1	1	4	1