Model Questions of Zoology Hons.

CC-VIII (Cell Biology)

UCH

1. What is fluid-mosaic model ?
2. What are the assumptions of fluid-mosaic model ?
3. What are the drawbacks of fluid-mosaic model ?
4. What are the types of phosphoglecerides ?
5. State the structure of phospholipid.
6. What are the movements shown by phospholipids ?
7. Why plasmamembrane is fluid in nature ?
8. Which is mosaic in plasmamembrane ?
9. Why fatty acyle chains of phospholipid are unsaturated ? State the role of this.
10. Why lipid bilayer is asymmetric in nature ?
11. What is sphingomayelin, cerebrosides, gangliosides ?
12. What is cholesterol ? State its role in plasmamembrane.
13. What are the different protein types present in plasmamembrane ? Give examples.
14. How water transport through plasmamembrane occurs ?
15. How alcohol transport within cell occurs ?
16. How ions are transported ?
17. What is facilitated diffusion ?
18. What is pump in biomembranes ? Why are they called so ?
19. What are the different types of pumps ?
20. What is active transport ?
21. What is uniport, symport and antiport ?
22. Mention the concentrations of Na^+, K^+, Cl^- ions inside and outside of cell.
23. What are junctional complexes ?
24. State the structural organization of Tight junction, Gap junction and Desmosomes. What are their functions ?
25. What is rough and smooth endoplasmic reticulum ?
26. Why more curvature is seen in SER ?
27. What is the luminal and membrane composition of ER ?
28. Why RER is named so ?
29. What is signal hypothesis ? What is signal peptide ?
30. State the functions of ER ?
31. What is ERGIC ?
32. Mention the structural organization of Golgi complex.
33. What are cis and trans cisternae ?
34. What is CGN, TGN ?
35. How cargo is transported through golgi complex ?
36. What are the functions of Golgi complex ?
37. State the luminal and membrane composition of Golgi.
38. What is COP-I, COP-II ?
39. Why Lysosome is called suicidal bag ?
40. What is the pH within lysosome ?
41. How inside pH of lysosome is maintained ?
42. State the constituents within lysosome.
43. What is glycocalyx ?
44. How the membrane proteins of lysosome remain protected from proteolytic enzymes ?
45. State the functions of Lysosome.
46. State the structure of Mitochondria with diagram.
47. What is mtDNA ? State nature.
48. What is cardiolipin ?
49. What are the compositions of inner and outer mitochondrial membrane ?
50. Mention the composition of mitochondrial matrix.
51. What is cristae ?
52. What are F1 particles ?
53. What is chemi-osmotic theory ?
54. State the functions of Mitochondria.
55. Describe the respiratory chain for electron transport.
56. How ATP is formed ?
57. What is peroxisome ? State its function.
58. What is tubulin, γ-tubulin, MTOC, mitotic spindle, Anaphase-A, Anaphase-B ?
59. State structure of mitotic spindle and function of microtubule.
60. What is composition of Nuclear pore complex ?
61. What is synapsis, synaptonemal complex ?
62. What is cyclin, cdk ? State function.
63. What is GPCR, second messenger ?
64. State characters of diplotene, diakinesis and metaphase.
65. Discuss different types of second messenger.