

11. The extra chromosomal circular Dna in prokaryotes is called:
 - a. Nucleoid
 - b. Nucleolus
 - c. Plasmid
 - d. Phagemid
12. Which of the following structures is only found in animal cells?
 - a. Mitochondria
 - b. Cell membrane
 - c. Centrioles
 - d. Ribosomes
13. The granular structures found attached to the endoplasmic reticulum are:
 - a. Ribosomes
 - b. Lysosome
 - c. Desmosome
 - d. Nissle granules
14. In mitochondria, cristae acts as the site for:
 - a. Protein synthesis
 - b. Lipid synthesis
 - c. Glycosylation
 - d. ATP synthesis
15. The acrosome in sperm is formed from:
 - a. RER
 - b. SER
 - c. Golgi apparatus
 - d. None of the above
16. In the cells of higher plants, the golgi bodies are called:
 - a. Desmosome
 - b. Mesosome
 - c. Dictyosome
 - d. None of the above
17. The long, flattened sac-like unbranched tubules, arranged parallel in cytoplasm are called:
 - a. Golgi apparatus
 - b. Microfilaments
 - c. Smooth endoplasmic reticulum
 - d. None of the above
18. The nuclear envelopes are formed from:
 - a. Plasma membrane
 - b. Endoplasmic reticulum
 - c. Golgi apparatus
 - d. None of the above
19. The longest stage in the cell cycle is:
 - a. Interphase
 - b. Anaphase
 - c. Metaphase
 - d. None of the above
20. Which of these scientists formulated the cell theory?
 - a. Schleiden and Schwann
 - b. Rudolf Virchow
 - c. Robert Koch
 - d. Antony Von

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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| 1. What were the postulates of cell theory? Differentiate between eukaryotic and prokaryotic cell. | 3+7=10 |
| 2. Why mitochondrion is called the power house of the cell? Describe the structure of mitochondria. | 2+8=10 |
| 3. What is synapsis? Describe how the metaphase stage of meiosis I is different from metaphase stage of meiosis II. | 2+8=10 |
| 4. Describe the chemical composition of protoplasm. State the functions of SER and RER. | 5+5=10 |
| 5. What are lysosomes? Describe their origin, structure and types. | 2+8=10 |
| 6. What are the different types of lipids found in the plasma membrane? Discuss any four functions of the plasma membrane. | 6+4=10 |
| 7. What are the ribosomes? What is meant by a 70S and 80S ribosome? Describe the structure of both types of ribosomes. | 2+4+4=10 |
| 8. Write short notes on: (<i>any two</i>) | 5×2=10 |
| a) Nucleus | |
| b) Chromosomes | |
| c) Cytoskeleton | |

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