



Octahedral classes, kharadi

2nd floor, yashwant plaza, near bank of India,

Class 09 - Science

fundamental units of life

Maximum Marks: 57

Time Allowed: 2 hours

Section A

1. Name two varieties of Indian fishes. 1
2. Name the two organelles that contain their own genetic material? 1
3. Define diffusion. 1
4. What is active transport? 1
5. What is the common name of mitochondria? 1
6. Where are genes located? 1
7. Which organelles other than nucleus contain DNA? 1
8. What is endocytosis? 1
9. Name two structures found in animal cells but not in plant cells. 1
10. What is hypertonic solution? 1
11. What is hypotonic solution? 1
12. Which organelle is the storage sac of solid and liquid materials? 1
13. Why is nucleus called director of the cell? 1
14. What is the chemical composition of cell wall in plants and fungi respectively? 1
15. Which organelle is involved in the formation of lysosomes? 1
16. Is the plant cell wall living or dead? 1
17. Name two cell organelles, which contain their own genetic material. 1
18. Where are proteins synthesized inside the cell? 1
19. What is isotonic solution? 1
20. What is the outermost layer found in the plant cell? 1
21. Which organelle serves as a channel for transport of materials between cytoplasm and nucleus? 1
22. What happens to an animal cell when it is placed in a very dilute external medium? Why? 1
23. Which structure is called little nucleus? 1
24. Where are proteins synthesised inside the cell? 1
25. What is cell theory? Who formulated it? 3
26. What is the difference between plasma membrane and cell wall ? Give the functions of each one. 3
27. Why is plasma membrane called selectively permeable membrane? 3
28. What would happen if the plasma membrane ruptures or breaks down. 3
29. Name the organelle of the cell, which has membrane-bound sac filled with power full digestive enzymes.
Write its any function in the cells. 3
30. What is the function of cellulose in a plant cell? 3
31. If you are provided with some vegetables to cook, you generally add salt into the vegetables. After adding salt, vegetables release water. Why? 3
32. What is the functional unit of life ? Define it. 3
33. Why is the plasma membrane called a selectively permeable membrane? 3
34. What would happen to the life of a cell if there was no Golgi apparatus? 3
35. If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen? 3