**Chapter 5**

**The Fundamental unit of Life**

1. Name the person responsible for coining the term protoplasm.
2. Name the chemical present in the walls of cell found in the bark of a tree.
3. Who suggested that all cells arise from pre-existing cells?
4. Who saw the cell for the first time and what was the material used by him?
5. What are cristae and what is its significance?
6. Which cell organelle gives rise to the lysosome?
7. ‘Lysosome are a kind of waste disposal system of a cell’ Justify the statement
8. Why are chloroplasts and mitochondria referred as semi-autonomous organelles?
9. What are cisternae?
10. Name a cell in both plant and animal that does not have nucleus.
11. If we add salt to cucumber slices after sometime water is released from it, why?
12. What will happen to an animal cell when it is mounted in hypertonic solution?
13. Differentiate between the following
14. Chromosome and chromatin
15. SER and RER
16. Name a cell organelle that is present only in plant cell. Name its types and functions.
17. State one function of the following organelles
18. Golgi apparatus
19. Mitochondria
20. Plasma membrane
21. Ribosomes
22. What is nucleoid? Where do you find it?
23. What do you understand by the fact that plasma membrane is selectively permeable?
24. When we place animal cell in hypotonic solution for long time it bursts whereas the plant cell placed in same solution does not burst why?
25. Multiple choice questions
26. An animal cell is mounted in a very weak salt solution then the cell will

a)remain same that is no change in size b)the cytoplasm will shrink

c) the cell will swell up d)none of the above

1. An animal cell is mounted in a very weak salt solution then the cell will

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1. An organelle in the cell that has its own DNA other than the nucleus which has all the DNA of the cell is

a)Mitochondria b) Ribosome c) cell wall d) lysosome

D. When an animal cell is mounted in weak salt solution, then the cell wall

a)remain same that is no change in size b)the cytoplasm will shrink

c) the cell will swell up d)none of the above

E. An organelle which has its own DNA other than the nucleus of the cell.

1. Mitochondria b) lysosome c) ribosome d) Cell wall
2. An organelle whose number increases when it is present in an active cell is
3. Plastid b)Mitochondria c)cell membrane d) golgi apparatus
4. Even though mitochondria is absent in the prokaryotic cell the respiration occurs in the prokaryotic cell because of

a)cilia b)mesosome c)cell membrane d)gas droplets

1. Both mitochondria and chloroplast are known as semi autonomous organelle because they have
2. Ability to replicate itself b) ability to destroy itself c) ability to absorb

d) none of the above

1. \_\_\_\_\_\_\_\_attached to the endoplasmic reticulum is responsible for protein synthesis.

a) Ribosome b) cytoplasm c) lysosome d) mitochondria

1. Name the following organelles
2. Kitchen of the cell
3. Powerhouse of the cell
4. Suicidial bags of the cell
5. Transporting channels of cell
6. Packing and dispatching unit of cell
7. An organelle without cell membrane
8. Name the membrane that surrounds the vacuole and state the function of vacuole.
9. What is Endocytosis? What are its different types?
10. Draw a labelled diagram of plant cell.
11. Where do you find nucleus and state its function?
12. Describe the structure of organelle whose number varies with activity of an organism.
13. Classify the given processes as diffusion or osomosis
14. Absorption of oxygen dissolved in water by aquatic animals
15. Swelling of raisins on keeping in water
16. Spreading of virus on sneezing
17. State the main points of modified cell theory.
18. Which are the three major functional regions of the cells? Mention the component and function of each.

**Chapter 6**

**Tissues**

1. What do you understand by division of labour with reference to multi-cellular organisms?
2. Name the kind of plant tissue in the following
3. Water hyacinth floats on water surface
4. Cells which is thickened in the corners
5. Parenchyma cells that have chloroplasts
6. The tissue allows branch of a tree to move and bend because of high wind velocity.
7. Name the two groups of plant tissue.
8. What is the waxy layer on the outer surface of plant that is secreted by the epidermal cells?
9. Name the two types of permanent tissue and state how are different from each other?
10. How is sclerenchyma tissue different from parenchyma tissue?
11. What is the function of epithelial tissue in animals?
12. Differentiate between the following
13. Striated and un-striated muscle
14. Cartilage and bone
15. Tendon and ligament
16. Blood and lymph
17. Xylem and Phloem
18. Name the animal tissue present in the following
19. Nasal septum
20. Tissue made up of cylindrical cells having light and dark bands found near heart
21. Respiratory tract
22. Sweat glands
23. Spinal cord
24. Tissue that connects one bone to another bone
25. Lining of kidney tubule
26. Draw a labelled diagram of a neuron- basic unit of nervous system.
27. Give reasons for the following
28. Contraction and relaxation of muscles brings about movement
29. We get granular feeling when we bite into guava.
30. It is difficult to pull out husk of coconut.
31. There is exchange of gases and transpiration in the leaf.
32. The outer protective tissue of stem changes to cork as plant grows older.
33. Even though both human beings and an apple tree are both complex living organism , both of them have specialised yet different tissue systems to perform the similar functions, why?
34. Name the connective tissue which helps in repair of tissue. State its location and mention its function.
35. How meristematic tissue is different from permanent tissue?
36. What is a connective tissue? State the major components of the connective tissue.
37. What kind of muscles is found in or around a) leg b) alimentary canal and heart of a person?
38. What is stratified squamous epithelium? Also state its importance in the animal body.
39. Name the main components of the Xylem and Phloem, state their functions also.
40. Draw a labelled diagram of T. S. Of bone.
41. What happens in the body if
42. Ligament gets overstretched
43. Striated muscles contract rapidly for longer duration
44. Apical meristem is removed from a plant
45. The whole body skeleton is made up of only bones and no cartilage
46. Why does the growth in plants occur in specific regions only?
47. Name the main fluid connective tissue and its major components and their functions.
48. Draw diagram of smooth muscle cells and cardiac muscle cells.
49. What is Haversian canal system? Where do you find them and what is its importance?
50. Complete the given flow chart

Permanent Plant tissue

Complex

Simple

Phloem

1. You are shown 2 slides of plant tissue which are not labelled one of the slide has tissue consisting of thin walled iso-diametric cells that are generally oval in shape and loosely packed with large airspaces. The other slide has tissue with cells having thickened corners
2. Name the tissue in the first slide
3. Name the tissue in the other slide
4. State the function of both the tissue mentioned in the above answer.
5. Multiple choice question
6. The connective tissue that joins muscle to bone is
7. Tendon b) Ligament c) cartilage d) Lymph
8. Which type of muscle is found in the intestine?
9. Smooth muscle b) striated muscle c) cardiac muscle d) voluntary muscle
10. The dead cell among the components of phloem is
11. Sieve tubes b) Companion cells c)Phloem parenchyma d) Phloem fibre
12. The Haversian canal system is found in \_\_\_\_\_\_\_\_\_\_ tissue
13. Bone b) Cartilage c) adipocyte d) ligament
14. The meristem responsible for lengthwise growth of plant is
15. Apical b) Lateral c) Intercalary d) none