SCIENCE CLASS IX
CHAPTER-6 TISSUES

Q.1. What features helps aquatic plants to maintain buoyancy in water?

Ans. Large cavities present in parenchyma of such plants helps to maintain buoyancy in water.

Q.2. What is called parenchyma containing tissue ?

Ans. Chlorenchyma.

Q.3. Plants are flexible due to which permanent tissue?

Ans. Collenchyma.

Q.4. State one role of parenchyma in plants.

Ans. It provides support to the plant and stores food.

Q.5. Walls of sclerenchymatous cells are thickened due to which reason?

Ans. It is thickened due to presence of chemical known as lignin.

Q.6. Why epidermis of plant living in dry habitats is thicker?

Ans. Epidermis of plant living in dry habitats are thicker in order to prevent loss of water.

Q.7. What is the function of waxy covering on epidermis of aerial parts of plants?

Ans. It aids in protection against water loss, mechanical injury and invasion by parasitic fungi.

Q.8. What kind of cells enclose stomata?

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Ans. Two kidney-shaped cells called guards cells.

Q.9. Cells of which tissue are irregularly thickened at the corners.

Ans. Collenchyma.

Q.10. What is transpiration?

Ans. Loss of water in the form of water vapour from aerial parts of plants.

Q.11. Which complex permanent tissue conduct material in both direction?

Ans. Phloem.

Q.12. What is the function of hair-like parts on roots?

Ans. The function of hair-like parts on roots is to increase the surface area for more water obsorption.

Q.13. What are the types of complex permanent tissues?

Ans. Xylem and phloem.

Q.14. Blood is which type of tissue?

Ans. Connective tissue.

Q.15. Cilia are present in which type of tissue?

Ans. Ciliated columnar epithelium.

Q.16. A selectively permeable surface is composed of what type of tissue in animals?

Ans. Simple squamous epithelium.

Q.17. Cells of which epithelium is cube-shaped?

Ans. Cuboidal epithelium

Q.18. What kind of cells can secrete substances at the epithelial surface?

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Ans. Gland cells.

Q.19. Which type of conducting tissue conduct water and minerals vertically?

Ans. Tracheids and vessels.

Q.20. Which conducting tissue transport food from leaves to other parts of plants?

Ans. Phloem.

Q.21. Why are cork impervious to gases and water?

Ans. Cork is impervious due to a chemical called suberin.

Q.22. Which muscles can show rhythmic contraction and relaxation throughout life?

Ans. Cardiac muscles.

Q.23. Which type of muscle fibre has light and dark band on its surface?

Ans. Striated or skeletal muscle.

Q.24. What kind of compounds compose bone cells?

Ans. Calcium and phosphorus.

Q.25. What kind of bloodcell is an integral part of immune system?

Ans. WBCs or white blood cells.

Q.26. Which biochemicals compose the solid matrix of cartilage?

Ans. Proteins and sugars.

Q.27. Which connective tissue helps in repair of tissues?

Ans. Areolar connective tissue.

Q.28. Which muscle has spindle-shaped cells?

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Ans. Smooth muscle.

Q.29. State one fuction of bone.

Ans. It anchors the muscle and supports the main organs of the body.

Q.30. Which tissue is present in spinal cord?

Ans. Nervous tissue or neuron.

Q.31. State one function of nerve impulse.

Ans. We can move our muscles, when we want.

Q.32. Name the tissue present in soft part of the plants like pith and cortex.

Ans. Parenchymatous tissue present in soft part of the plants.

Q.33. What is function of phloem?

Ans. Phloem transports food from leaves to other part of the plant.

Q.34. What is the function of xylem?

Ans. It transports water and mineral from roots to leaves of the plant.

Q.35. Name the tissue present in brain.

Ans. Nervous tissue present in brain.

Q.36. Give two main functions of stomata.

Ans. (i) It allows gaseous exchange between plant and animals.

(ii) These are transpiration sites of plant.

Q.37. Name the dead element of phloem.

Ans. Phloem fibres are dead element of phloem.

Q.38. Name the type of tissue which is abundantly found in animal.

Ans. Connective tissue abundantly found in animals.

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Q.39. Write the common name of

(i) Xylem (ii) Phloem.

Ans. (i) Xylem – Wood

(ii) Phloem – Bast

Q.40. State when the tissue formation take place.

Ans. Tissues are formed when cell differentiate during development.

Q.41. Name the following

(i) Multinucleate muscle fibre

(ii) Spindle- shaped muscle fibre

Ans. (i) Skeletal muscle fibre

(ii) Smooth muscle fibre

Q.42. Which meristem is present at growing tips of stems and roots?

Ans. Apical meristem increases the length of plants and are present at growing tips of stems and roots.

Q.43. Which process is followed by meristemetic tissue to form permanent tissue?

Ans. Differentiation is a process by which meristemetic tissue takes up a permanent shape, size and function.

Q.44. Name basic packing tissue of plant.

Ans. Parenchyma are present as layer living cells, this tissue provide support to plants and also stores food.

Q.45. Which pigment helps in performing photosynthesis by plants?

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Ans. Chlorophell helps in trapping the sunlight needed for photosynthesis.

Q. 46. Which tissue is present at the lining of mouth?

Ans. Squamous epithelium are extremely thin and flat and form the delicate lining of mouth.

Q.47. What is the prominent function of blood?

Ans. Blood carry oxygen and food to all the body parts as it circulate throughout the body.

Q.48. Which connective tissue is specialized for fat storage?

Ans. Adipose tissue is basically an aggregation of fat cells or large droplets of fat fill in it.

Q.49. Which body cell provides resistance against infection?

Ans. WBC provides resistance against infection by producing antibodies in the body.

Q.50. Which tissue is responsible for growth of plant?

Ans. Apical meristematic tissue is situated at growing tips of stem and roots and responsible for growth.

Q.51. What is the name of parenchyma having large air cavities?

Ans. Aerenchyma in the parenchyma having large air cavities

Q.52. What is the role of tendon in animals.

Ans. Tendon is a connective tissue, which connect a muscle with a bone.

Q.53. What is the living component of xylem?

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Ans. Vessel consists of living cells having thin cell walls and also help in sideways conduction of water.

Q.54. What is the difference between meristematic tissues and permanent tissues?

Ans. Meristematic tissues have ability to divide hence, they continuously produced new cells, while permanent tissues normally does not divide and get differentiated into specialized cells.

Q.55. Which tissue is found in an area of regular wear and tear?

Ans. Skin epithelial arranged in a pattern of layer to prevent wear and tear is called stratified squamous epithelium.

Q.56. Name the largest blood cell.

Ans. Monocytes are the largest blood cells which are the type of agranulocytes WBC. They have large nucleus on one side of the cell and also possess large amount of cytoplasm. They migrate to body tissues and transform into macrophages.

Q.57. From which matter matrix of cartilage is made up of.

Ans. Chondrin The matrix of cartilage has delicate network of collagen fibres and living cells, chondrocytes.

Q.58. Which part of an actively growing root takes up most of water from soil?

Ans. Root hairs have thin epithelium and large surface area to volume ratio to increase the rate of obsorption of water.

Q.59. Which type of tissue contracts when it is stimulate by nerve impulse?

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Ans. Striated muscle fibres contracts when stimulated by nerve cell.

Q.60. Name the junction between the terminal part of one axon and the dendrite of adjacent neuron.

Ans. Synapse helps in transmission of impulses from one neuron to other.

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