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|  | **WORK SHEET** |
|  | **Class IX** |
|  | **1 Mark questions** |
| 1. | Name two organelles that contain their own genetic material. |
| 2. | Lysosomes are called suicidal bags of the cell. Explain. |
| 3. | What is the site for the synthesis of proteins? |
| 4. | Where do the proteins and lipids constituting the cell membrane get synthesized? |
| 5. | What is osmosis? |
| 6. | Define: Endosmosis, Exosmosis, and Nucleoid. |
| 7. | Give any two hybrid varieties of crops. |
| 8. | Give two biotic and two abiotic factors that may damage the crop. |
| 9. | Name the variety of honeybee that gives the high yield of honey. |
| 10. | Define: Manure, Fertilizer, Pest, and Harvest. |
| 11. | Give the scientific name of the Italian bee. |
| 12. | What is Apiculture? Give the different variety of honey bees reared for honey and also bee wax. |
| 13. | Name the Indian variety of fowl. |
| 14. | What is multiple cropping? Give e.g. |
| 15. | Give any two diseases of cattle. |
| 16. | Define composite fish culture |
| 17. | What are the three variety of honey bees? |
| 18. | Give the common names of: *Apis florae*, *Apis dorsata, and Apis indica.* |
| 19. | Write two infectious diseases of each of cow and poultry. |
| 20. | Name two storage pests of food grains found commonly in India. |
| 21. | Name the types of simple tissues in plants. |
| 22. | Give the location of the apical meristem. |
| 23. | What is aerenchyma? Give its functions. |
| 24. | Which type of tissue makes up the husk of coconut? |
| 25. | How many types of vascular tissues are found in plants? |
| 26. | Name the tissue that provides flexibility to the soft areal plant parts. |
| 27. | What is aerenchyma? Give its functions. |
| 28. | Which tissue makes up the husk of coconut? |
| 29. | Give the specific function of cardiac muscles? |
| 30 | Which material is responsible for the stiffness of sclerenchyma? |
|  | **2 marks questions** |
| 1. | State any two control measures to be taken before grains are stored. |
| 2. | List the different varieties of milch animals in our country. |
| 3. | What do you mean by drought animals? Give the different varieties of drought animals. |
| 4. | Give the benefits of cattle farming. |
| 5. | What the two ways of fish capturing? What is the major problem in fish farming? |
| 6. | Why is use of excess fertilizers detrimental for the environment? |
| 7. | What do you understand by composite fish culture? |
| 8. | Write the modes by which insects affect the crop yield. |
| 9. | Give differences between Capture fishery and Culture fishery. |
| 10. | Differentiate between Beekeeping and Poultry farming. |
| 11. | Differentiate between Compost and Vermicompost. |
| 12. | Name two varieties of Indian fishes. (Fresh water & marine). |
| 13. | What happens to animal cell when it is placed in a very dilute external medium? Why? |
| 14. | Give different plant parts in which chloroplast, chromoplasts and leucoplasts are present. |
| 15. | Differentiate between nucleus and Nucleoid. |
| 16. | Differentiate between chromatin and chromosome. |
| 17. | Name the organelle that can make some of its proteins. |
| 18. | Why cell membrane is called selectively permeable membrane? |
| 19. | State one similar and one dissimilar feature with respect to mitochondria and chloroplast. |
| 20. | Give basic difference between prokaryotic and eukaryotic cell. |
| 21. | What are permanent plant tissues? Give types of permanent plant tissues. |
| 22. | Differentiate between xylem and phloem. |
| 23. | Give different types animal tissues .Give location of germinal epithelium. |
| 24. | Enlist important functions of adipose tissue. |
| 25. | What is cartilage? Give its location. |
| 26. | What are various types of epithelial tissues? |
| 27. | What is phloem? What are different elements of phloem? |
| 28. | What is xylem? Give the various elements of xylem? |
| 29. | What is synapse? Explain. |
| 30. | Identify the types of tissue in the following: skin, bark of tree, bone, lining of kidney tubule, vascular bundle. |
| 31. | Where do storage, packaging and dispatching process of the synthesized materials take place in a cell? What other function does this cell organelle perform? |
|  | **3 Mark questions** |
| 1. | What factors may be responsible for losses of grains during storage? |
| 2. | “It is interesting to note that poultry is India’s most efficient converter of low fibre food stuff  (which is unfit for consumption) into highly nutritious animal protein food.”Explain this statement. |
| 3. | What is pasturage? How is it related to honey production? |
| 4. | How will you differentiate between capture fishing, mariculture, and aquaculture? |
| 5. | What are the desirable characters of bee varieties suitable for honey production? |
| 6. | List advantages of composite fish culture. |
| 7. | What are the consequences of the following conditions?  a) A cell containing higher water concentration than the surrounding medium.  b) A cell having low water concentration as compared to the surrounding medium.  c) A cell having equal water concentration to its surrounding medium. |
| 8. | Why simple permanent tissues are called so? Name the different types of simple permanent tissues. |
| 9. | Mention three ways by which the insects attack the plants. |
| 10. | a) Give the technical term for beekeeping.  b) What is pasturage? And how is related to honey production?  c) Mention any two varieties of honeybees that are Indian in origin. |
| 11. | List two similarities and two dissimilarities between a plant cell and an animal cell. |
| 12. | a) Mention different types of blood cells.  b) Which substances are transported by the blood? |
| 13. | List the desirable agronomic characters for crop improvement in cereals. |
| 14. | Why preventive measures & biological control methods should are preferred for protecting crops? |
| 15. | Differentiate between bone &cartilage. |
| 16. | Differentiate between skeletal, smooth & cardiac muscles. |
| 17. | Draw a labeled diagram a neuron. |
| 18. | What synapse? Explain. |
| 19. | Draw a labeled diagram of mitochondria as seen under electron microscope. |
| 20. | Draw a well labeled diagram of an animal cell or a plant cell as observed under electron microscope. |
| 21. | Mention three ways by which the insect pests attack the plants. |
| 22. | Mention the use of broiler chickens. Why their food is rich in vitamins? |
| 23. | i) Mention different types of blood cells.  ii) Which substances are transported by blood? |
| 24. | Why does skin of your fingers shrink when you wash clothes for long time? |
|  | **5Mark questions** |
| 1. | i) Who discovered cell? Which major invention led to discovery of the microscopic world?  ii) Name a single cell which may constitute a whole organism. What are they called?  iii)’ Every multicellular organism has come from a single cell’. Justify the statement. |
| 2. | Answer the following:  i) Draw a labeled diagram of smooth muscle.  ii) Differentiate between xylem and phloem.  iii) Mention the constituents of blood.  iv) Name the epithelial tissue that stores fats in the body. |
| 3. | State the necessity of the variety improvement in crops for food production. How is it executed for the benefit of mankind? |
| 4. | On the basis of structure and function explain the various types of epithelial tissues with the help of labeled diagrams. |
| 5. | Discuss the structure, occurrence and functions of any one type of muscle fibres. |
| 6. | Draw a plant cell and label the parts which -  a) determines the function and development of the cell.  b) packages materials coming from the endoplasmic reticulum.  c) provides resistance to microbes to withstand hypotonic external medium without bursting.  d) is site for many biochemical reactions necessary to sustain life.  e) isa fluid contained inside nucleus. |
| 7. | In brief state what happens when  a) Dry apricots are left for sometime in pure water and later transferred to sugar solution?  b) A red cell is kept in concentrated saline solution?  c) The plasma membrane of the cell breaks down?  d) Rheo leaves are boiled in water first and then a drop of sugar syrup is put on it?  e) Golgi apparatus is removed from the cell? |
| 8. | Differentiate between plant cell and animal cell. |
| 9. | Differentiate between prokaryotic cell and eukaryotic cell. |
| 10. | Differentiate between xylem and phloem. |
| 11. | Discuss the role of hybridization in crop improvement. |
| 12. | Discuss the various methods of weed control. |
| 13. | Discuss why pesticides are used in very accurate concentration and appropriate manner? |
| 14. | Write an account of composite fish culture. |
| 15. | With the help of an activity explain the process of osmosis. Give definition of osmosis.(Draw diagram) |