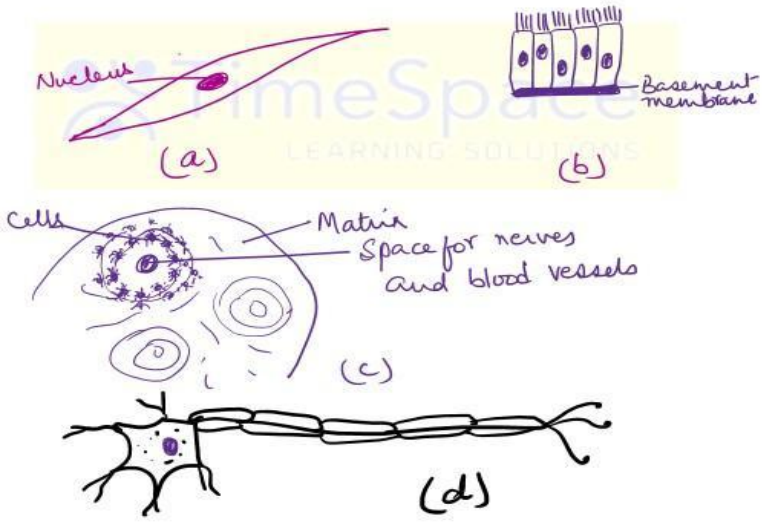
**Marks: 60** **Time: 90 min**

1. Define tissue. Name a plant that does not have tissues. 1
2. Name the conducting elements of Xylem. 2
3. How is conduction through Xylem different from translocation in phloem? 2
4. Which kind of epithelial tissue is called pavement epithelium? How is glandular epithelium formed? 2
5. What is stomata? Where is it found? What is the function of stomata? 2
6. Write the difference between tracheids and vessels. 2
7. How is the matrix of bone different from that of cartilage? 1
8. In which kind of animal or plant tissue would you find the following?

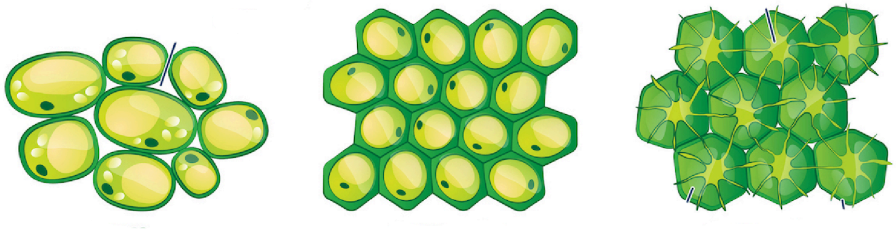
   a. Lymphocyte b. Basophil
   c. osteocyte d. chondrocyte
   e. mast cells f. lacuna
   g. Haversion canal h. Hyaline matrix
   i. Canaliculus j. Cyton 5
9. What is the role of platelets in blood ? 1
10. Draw a diagram to show the location of different kinds of meristematic tissue. Which kind of meristematic tissue is absent in sugar cane? 3
11. Define differentiation. What is the structure of meristematic cells before differentiation. 2
12. Where do cork cells come from? What is their significance? 2
13. How is plant growth different from the pattern of growth in animals? 2
14. What adaptations are found in the epidermis of stem and the epidermis of root? 2
15. Compare the structure and function of skeletal muscles, cardiac muscles and smooth muscles. 4
16. Identify the type of tissue shown in the picture. Give reason for your identification. 4




17. Which structure protects the plant against invasion of parasites? 1
18. Why do animals living in cold regions have a layer of fat under the skin? Which type of tissue is this? 2
19. How does water hyacinth float on water? 1

20. Differentiate between sclerenchyma and parenchyma. 2

21. Identify these plant tissues and write the composition of their cell wall. 3



22. Identify the tissues that are found in-

| | | | |
|---|---|---|---|
| a. | Skin | b. | bark of a tree |
| c. | Bone | d. | lining of kidney tubule |
| e. | vascular bundles in plants | f. | Ducts of salivary glands |
| g. | husk of coconut | h. | alveoli lining |
| i. | Heart | j. | Attached to biceps |
| k. | Iris | l. | Uterus lining |
| m. | Lining of kidney tubule | n. | Mesophyll of leaf |

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23. What is the function of ciliated epithelium? Give 2 examples where it is found. 2

24. Name the 7 kinds of tissues/cells which are found in the stem of a dicot plant. 3.5

25. Write 3 functions of blood. 1.5