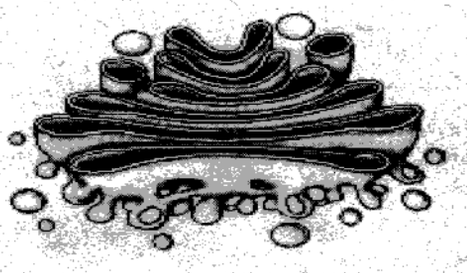
BIOLOGY

Time : 40 minutes
Score : 20

Answer any 3 from questions 1 to 4. Each question carries 1 score. (3x1=3)

1. Identify the cell organelle.



2. Correct mistakes if any, in the underlined part of the given statements.
   a. Collenchyma is seen in the soft parts of the plant.
   b. Sclerenchyma is made up of cells that are uniformly thick allover the cellwall.
   c. Muscular tissue can transform into other type of cells.
   d. Blood carries out the conduction of materials and makes the body resistant to diseases.
3. From the pair of scientists given below, choose the correct pair related to the formulation of cell theory.
   - Robert Brown and Robert Hook
   - M.J.Schleiden and Theodor Schwann
   - Robert Brown and Rudolf Virchow
   - Theodor Schwann and Robert Hook
4. Identify and name the connective tissues performing the following functions.
   a. Connects other tissues.
   b. Provides support, protection and definite shape to the body.

Answer any 4 from questions 5 to 9. Each question carries 2 score. (4x2=8)

5. 'Nucleus is the regulatory centre of cell'- Evaluate the statement by giving reasons.
6. Certain parts of a cell are given below. Choose suitable parts to complete the table.

   ■ Cell wall ■ Nucleus ■ Lysosome
   ■ Cellmembrane ■ Centrosome ■ Vacuole

Seen only in plant cells	Seen only in animal cells
■ ■	■ ■

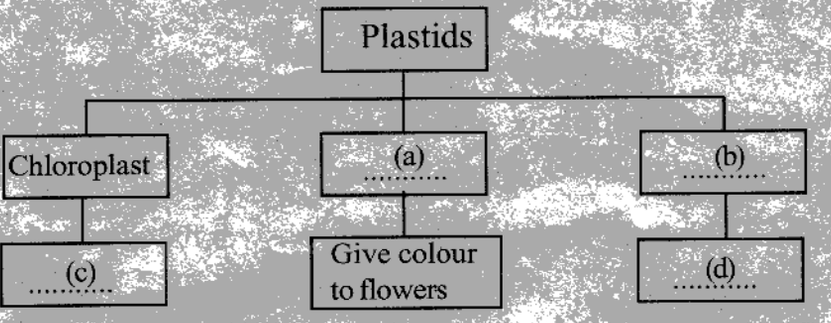
7. Analyse the given statement and answer the questions.

"Consists of cells that can contract and regain the original state".

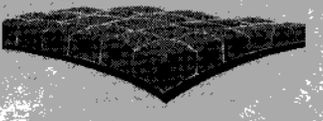
a. Name the animal tissue mentioned here.

b. Write its function.

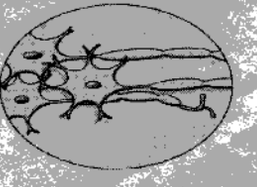
8. Complete the illustration related to plastid.



9. Identify the animal tissues A and B and write any one function of each.



A



B

Answer any 3 from questions 10 to 13. Each question carries 3 score. (3x3 = 9)

10. Various stages in the preparation of a slide to observe the plantain root cells through a microscope are given in the box. Arrange them in correct order.

- Put the thinnest sections to a watch glass containing stain.
- Place a coverglass over the material in such a way that air bubbles do not pass.
- Put the stained section in the glycerine on the slide.
- Take thin cross sections of the material to be observed.
- Add one or two drops of glycerine to the slide.
- Shift the sections to a watch glass containing water.

a. Put the material to be observed in a petridish containing water.

b.

c.

d.

e.

f.

g.

h. Wipe out the excess glycerine and observe through a microscope.

11. A portion of the Science Diary of a student is given below. Analyse it and answer the questions.

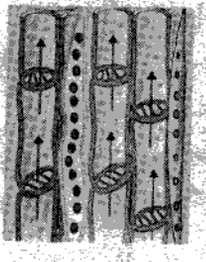
In our body, there are certain specialised cells that can transform into any kind of cells. They compensate the destruction of cells....

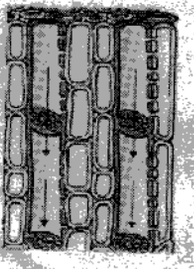
a) Name the cells indicated in the diary.

b) How does they compensate the destruction of cells in the tissue ?

c) What is the importance of these cells in modern medicine?

12. Observe the diagram of vascular tissue and answer the questions.





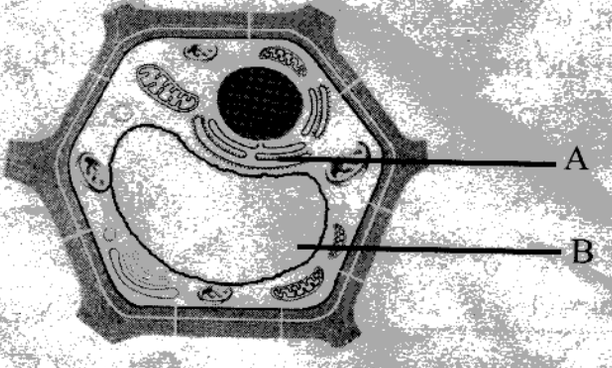
(a) Xylem (b) .....

i) Identify (b)

ii) Why are they known as vascular tissues?

iii) Write two peculiarities of each of them.

13. Observe the diagram and answer the question.



Name the parts A and B and write their functions.