BIOLOGY

Time : 40 Minutes | Score : 20

Answer all questions from 1 to 3. Each question carries 1 score. **(3 x 1 = 3)**

1. Scientists who made remarkable contributions in cell Biology are given below. Who among them proposed **'cell theory'**?
   (i) Robert Hooke
   (ii) Rudolf Virchow
   (iii) M.J. Schleiden
   (iv) Theodor Schwann
   (a) i, iii (b) iii, iv (c) i, iv (d) i, ii
2. When mango ripens, its colour changes to yellow. What is the reason behind this ?
3. Function of an animal tissue is given in the box.

Enables to respond identifying the changes inside and outside the body

- Identify and write the name of the animal tissue.

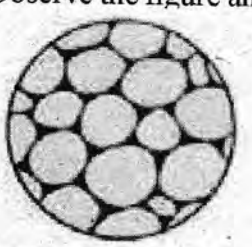
Answer any 4 questions from 4 to 9. Each question carries 2 score. **(4 x 2 = 8)**

4. Analyse the given indicators and complete the table.

Function and peculiarities	Cell Organelle
• Centre of protein synthesis	(a) .....
• (b)	Mitochondrion
• Collects cell secretions like enzymes, hormones, mucous etc. in small vesicles.	(c) .....
• (d)	Vacuole

5. **Bacteria, Amoeba, Frog, Mycoplasma, Mango tree**

   (a) From the organisms given in the box, find out those **without nucleus.**
   (b) Name the category of organisms to which they belong.
6. From the following statements, select those related to sclerenchyma.
   a) Composed of cells with simplest structure. b) Composed of cells that are uniformely thick all over the cell. c) Helps in photosynthesis d) Provides strength and support to plants.
7. **'Tissues combine to form organs'.** Considering intestine as example, justify the statement.
8. Observe the figure and answer the following questions.



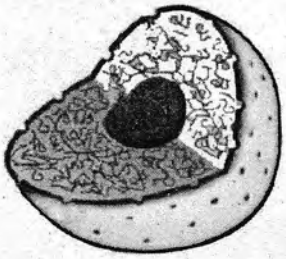
   (a) Identify and write the name of the plant tissue.
   (b) Write the peculiarity that help to identify this tissue when observed through a microscope.

9 **'A Giant leap in stem cell research'.**

Write any two relevant points in a Science seminar related to this topic.

Answer <u>any 3 questions</u> from 10 to 13. Each question carries 3 score. (3 x 3 = 9)

10. Copy the given diagram.

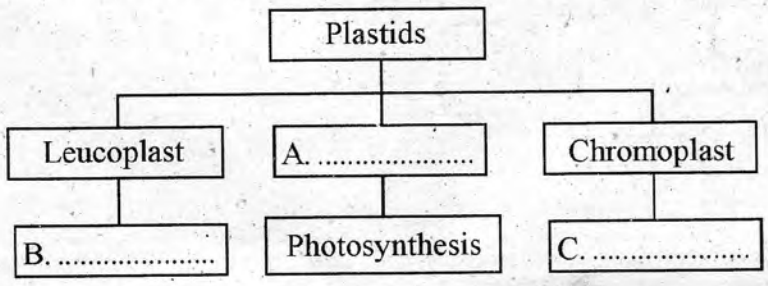


Identify, name and label the parts, by the hints given below.

(a) They are seen as a network in the nucleoplasm.

(b) Play a major role in the synthesis of ribosomes.

11. Complete the illustration related to plastids.



12. Statements related to plant cells are given below.

- Comparatively thin cell wall
- Comparatively large nucleus
- Less amount of cytoplasm
- Thick secondary wall

Arrange them suitably in the given table and give title.

.....	.....
•	• .....
•	• .....

13. Some cell components are given in the box. Pickout the suitable cell components and complete the illustration.