

General Instructions :

- i) In the time duration of 2 hrs, 45 minutes, 15 minutes of time is allotted to read and understand the question paper.*
- ii) Answer all the questions under part-A on separate answer book.*
- iii) Write the answers to the questions under part-B on the question paper itself and attach it to the answer book of part-A.*

- Instructions:*
- i) Part - A comprises of three Sections I, II and III.*
 - ii) All the questions are compulsory.*
 - iii) There is no overall choice. However there is internal choice to the questions under Section-III.*

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Section - I

Note: i) Answer all the questions.

ii) Each question carries 1 mark.

iii) Write the answers in 1 or 2 sentences.

7x1=7

1. How do xylem, phloem tissues are useful to plants ?
2. Name the chemical that you use to observe Bone cells ?
3. Draw the diagram of Euglena ?
4. What happens if cell wall is absent in plant cells ?
5. Mention any two programmes that you conduct to appreciate the effort of scientists in classifying a wide range of organisms.

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- ✓ 6. Which organelle is observed by using Janus Green B in the laboratory ?
- ✓ 7. 'Plants give us many substances in our daily life' - Write any two suggestions to protect plants.

Section - II

Note: i) Answer all the questions.

ii) Each question carries two marks.

iii) Write the answers in 4 - 5 sentences.

6x2=12

- ✓ 8. Write the differences between plant cell and animal cell ?
- ✓ 9. Write any four questions to ask your teacher to get more information about diversity in living organisms ?
- ✓ 10. Mention the functions of Endoplasmic Reticulum ?
- ✓ 11. Draw a neat labelled diagram of T.S of stem ?
- ✓ 12. Write any four programmes to get the awareness about the need to know of blood test in daily life.
13. Fill up the table given below.

Sl.No.	Name of the plant	Leaf venation	Root system
1.	Maize		
2.	Beans		

Section - III

Note: i) Answer ALL the questions.

ii) Each question carries 4 marks.

iii) Internal choice is given.

iv) Answer each question in 6 - 8 sentences.

14. a) Describe the structure of Neuron with the help of the diagram.

(OR)

- b) Describe the classification of plant kingdom in the form of flow - chart ? <https://www.apboardonline.com>

15. a) Describe your observations and the precautions taken to know about the Blood Groups in the Laboratory.

(OR)

- b) Describe the procedure you followed to know about the Dermal Tissues in plants.

16. a) Write the differences given below.

- | | | |
|------------------------|---|---------------|
| a) Parenchyma | - | Collenchyma |
| b) Meristematic tissue | - | Ground tissue |

(OR)

- b) Describe the structure of Mitochondria with the help of the Diagram.

17. a) Read the following table and answer the questions.

Vertebrate	Heart
Pisces	Two chambers
Amphibians	Three chambers
Reptiles	Incompletely divided four chambers of Heart
Aves	Four chambers
Mammals	Four chambers

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Questions:

- 1) Why do the above mentioned organisms called as vertebrates ?
- 2) What is the special characteristic of Amphibians ?
- 3) Give two examples to Mammals ?
- 4) Mention the reason, how do the different number of Heart members formed in vertebrates ?

(OR)

b) Read the following Table and answer the questions.

<i>Organelle</i>	<i>Function</i>
Plasma Mombrane	Equilibrium
Nucleus	Cell division
Golgi Apparatus	Regeneration of the cell membrane
Ribosomes	Synthesis of proteins

Questions:

- 1) Mention the other functions of Nucleus ?
- 2) Mention other organelles present in the cell ?
- 3) Name the scientist who invented Golgi Apparatus ?
- 4) What do plasma membrane called as ?