Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
End Semester Examination: February-March 2024
Faculty: Science and Technology

Program: B.Sc. **Semester: IV** **SET: B**
Program (Specific): General B.Sc **Course Type:** Core
Class: SY B.Sc. **Max. Marks: 35**
Name of the Course: Plant Anatomy and Embryology
Course Code: 23 - BO - 241 **Time: 2Hr**
Paper: I

Instructions to the candidate:

1) ***There are 4 sections in the question paper. Write each section on separate page.***
2) ***All Sections are compulsory.***
3) ***Figures to the right indicate full marks.***
4) ***Draw a well labelled diagram wherever necessary.***

SECTION: A

Q.1) Answer the following **5**

a) What are glandular hairs?

b) What is egg apparatus?

c) Define Cork.

d) What is helobial endosperm?

e) What is palynology?

Q.2) Answer <u>any four</u> of the following **4**

a) What is porogamy?

b) Define open and close vascular bundle.

c) Explain tetrahedral tetrad in microsporogenesis.

d) Hydrophily

e) What are Lenticels?

f) Explain scope of plant anatomy in ecological interpretation with suitable example.

SECTION: B

Q.3) Write short note on <u>any four</u> of the following. **8**

i) Describe the structure and function of Phloem?

ii) Orthotropus ovule

iii) Autumn and spring wood

iv) Tetrasporangiate anther

v) Principles involved in incompressibility.

vi) Zoogamy

SECTION: C

Q.4) Answer <u>any four</u> of the following **8**

1) Explain structure and function of periderm.

2) Explain the mechanism of pollination in plants.

3) Explain the scope of plant anatomy in taxonomical studies.

4) Write a note of dicotyledonous embryo.

5) Give an account of different types of stomata.

6) What is the significance of double fertilization?

SECTION: D

Q.5) Attempt <u>any two</u> of the following **10**

a) Describe the process of development of Tetrasporic embryo sac with suitable example.

b) Explain the process of normal secondary growth in *Annona squamosa* stem.

c) Explain the process of Anomalous secondary growth in *Dracaena* stem.

d) Write a details note on structure of male gametophyte in angiosperm.