

Reg. No.:



Name:

University of Kerala

W6781

Third Semester FYUGP Degree Examination, November 2025

Discipline Specific Core Course

BOTANY

UK3DSCBOT201 - Histology and Reproductive Botany

Academic Level: 200-299

2024 Admission

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	Give an eg for wind pollinated flower	RE	2
2	Name one reserve food material stored in plant cells.	RE	1
3	What are Cystoliths?	UN	1
4	State the type of ovule found in <i>Allium</i> .	UN	4
5	What is the function of periderm?	UN	2
6	What is the main function of stomata in plants?	UN	2

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Comment on Exine	UN	1
8	How secondary xylem is formed during secondary growth in dicot stems	UN	2
9	Compare normal secondary growth in the stem and root.	AP	3
10	Demonstrate the structure of a typical flower showing essential and non-essential whorls	AP	4

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Explain how the structure of a primary root helps in anchorage and absorption with reference to its tissues. OR B) a. Explain the different theories regarding the organization of root apex in dicots.	AP	2, 3
12	A) Draw a labelled diagram of a mature anther and explain. OR B) Compare the role of plasmodesmata and pits in the transport of substances between plant cells, highlighting their structural differences	AN	2, 1
13	A) “Anomalous secondary growth is more than an abnormality; it is a survival mechanism.” – Critically comment with reference to Bignonia stem. OR B) Evaluate the organization of tissue systems in relation to plant form and function.	EV	3, 2
14	A) Outline a framework for predicting how wind, insect, and water pollination shape the evolution of flower structure and reproductive timing in plants OR B) Devise a diagrammatic model for the tissue systems—epidermal, ground, and vascular—in a hypothetical xerophytic plant, specifying the anatomical adaptations that would aid in extreme arid conditions.	CR	4, 2