

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2025 ONLY)

25UZY2A2

REG.NO. :

**B.Sc.-ZOOLOGY
SEMESTER: II**

**MAXIMUM MARKS: 75
TIME : 3 HOURS**

**GENERIC ELECTIVE II- ALLIED : BOTANY
TAXONOMY OF ANGIOSPERMS, PHYSIOLOGY, HORTICULTURE,
PHARMACOGNOSY & PLANT BIOTECHNOLOGY**

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

MULTIPLE CHOICE QUESTIONS.

1. Which floret is usually bisexual in Asteraceae?
a. ray floret b. disc floret c. peripheral floret d. ligulate floret
2. Which of the following green algae were used by Melvin Calvin in his experiments to determine the sequence of dark reaction of photosynthesis?
a. *Chlorella and Scenedesmus* b. *Chlorella and Chlamydomonas*
c. *Chlorella and Ulothrix* d. *Chlamydomonas and Ulothrix*
3. Simple layering is usually practiced in _____
a. plants with flexible stem b. tree forms c. woody herbaceous plants d. prostrate plants
4. The oldest written records of Indian medicine are found in _____.
a. Charaka Samhita b. Sushruta Samhita c. Rigveda d. Atharvaveda
5. An excited part of the plant to be used in plant tissue culture is _____
a. explant b. culture c. callus d. plantlet

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. Explain protandrous.
7. Find the physiological role of ABA in transpiration.
8. Define layering.
9. What is pharmacognosy?
10. Define totipotency.

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) List the morphological characters of Poaceae.

(OR)

- b) Describe the floral characters of Amarantaceae.

(CONTD 2)

12. a) Enumerate the physiological effects of auxin.
(OR)
b) Describe the process of cyclic photophosphorylation.
13. a) Vegetative propagation maintains genetic stability - Interpret.
(OR)
b) Compare approach and bridge grafting.
14. a) Outline the morphological classification of crude drugs.
(OR)
b) Differentiate organized and unorganized drugs.
15. a) How will you raise the plants from an explant through plant tissue culture method?
(OR)
b) Examine the process of synthetic seed production.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.****(K4 (Or) K5)**

16. a) Analyse the salient features of Annonaceae.
(OR)
b) Criticize the floral characters of Rubiaceae.
17. a) Inspect the process of Non-cyclic photophosphorylation.
(OR)
b) Carbon is assimilated in plants mainly by C₃ Cycle - Infer.
18. a) Expound the art of Bonsai in detail.
(OR)
b) Summarize the different types of stem cutting techniques with example.
19. a) Outline the various types of drug adulteration.
(OR)
b) Classify the crude drugs based on pharmacology and chemical nature.
20. a) Prove that Bt cotton is a transgenic plant.
(OR)
b) In tissue culture, genetically identical clones can be produced by micropropagation – Justify.

ETHICAL PAPER