



SECTION - E

Answer any one. Long essay type questions. Each question carries a weightage of 4.

- 27. What is photophosphorylation ? Explain non-cyclic photophosphorylation with an illustration.
- 28. Discuss anomalous secondary growth in Dracaena stem with labelled sketches.
- 29. Give an account on nitrogen fixation. (1×4=4)

SECTION - C

13. Write notes on laticiferous tissue.

14. What is leaf roll and L50 ?

15. What is periderm ?

16. Explain the respiration observed in the chlorophyllous cells only in light.

17. What is the significance of cohesion tension theory ?

18. List out the anatomical adaptations of parasites. (2×1=2)

SECTION - D

Answer any six. Short essay questions. Each question carries a weightage of 2.

19. Illustrate with examples the different types of stomata.

20. Write notes on photosynthetic pigments.

21. What do you know about the different types of cambium ?

22. Explain symbiotic nitrogen fixation.

23. Discuss stomatal opening and closing by K⁺ transport theory.

24. Enumerate anatomical adaptations of halophytes.

25. Bring out the structure of chloroplast using suitable diagrams.

26. Describe the procedure of mass selection. (2×2=4)



Reg. No. :

Name :

IV Semester B.Sc. Degree (CCSS – Supple./Imp.)
Examination, May 2016
COMPLEMENTARY COURSE IN BOTANY
4C04BOT : Plant Physiology, Angiosperm Anatomy and Crop Improvement
(2012 & 13 Admissions)

Time : 3 Hours

Total Weightage : 30

SECTION - A	SECTION - B	SECTION - C
<p>Answer all questions in bunches of four. Each bunch carries a weightage of 1.</p> <p>1. Choose the correct answer :</p> <p>i) Flowering response of plants to relative length of day and night</p> <p>a) Photosynthesis b) Photoperiod</p> <p>c) Photoperiodism d) Phytochrome</p> <p>ii) Individuals obtained from a single plant through asexual reproduction</p> <p>a) Hybrid b) Clones c) Haploids d) Polyploids</p> <p>iii) Photosynthetic apparatus in plants</p> <p>a) Thylakoid b) Quantasomes</p> <p>c) Grana d) Chloroplast</p> <p>iv) Pitcher of Nepenthus is an example of</p> <p>a) Secretory gland b) Digestive gland</p> <p>c) Nectaries d) Oil glands</p>		

2. State True or False :

- i) Auxin promotes apical dominance.
- ii) C4 plants do not exhibit photorespiration.
- iii) Growth ring represents one year growth of the stem.
- iv) Stem apex is an example of apical meristem.



3. Fill in the blanks :

- i) Hormone which is an antitranspirant is _____
- ii) Pressure developed on the solution side when separated from its solvent by a semi permeable membrane _____
- iii) Companion cells are present in the complex tissue _____
- iv) _____ is the ability of a plant cell to develop into a complete plant.

4. Match the following

A	B	C
Zeatin	Living cells	Pureline selection
Chloroplast	Growth hormone	Mechanical
Collenchyma	Self pollinated crops	Thylakiod
Pedigree method	Grana	Cytokinin

5. Answer in **one** word or in **one** sentence :

- i) Calyptrogen
- ii) Mordant
- iii) Phloem loading
- iv) Explant

(5×1=5)

SECTION – B

Answer **any four**. Differentiate the following. **Each** question carries a weightage of 1.

- 6. Grana and Thylakiod
- 7. Trachieds and Vessels
- 8. Sclereids and Fibres



- 9. Venalisation and Devenalisation
- 10. Spontaneous and induced mutation
- 11. Osmosis and Plasmolysis.

(4×1=4)

SECTION – C

Answer **any five**. Short answer questions. **Each** question carries a weightage of 1.

- 12. Explain photoperiodism
- 13. Write notes on laticiferous tissue
- 14. What is lethal dose and LD50 ?
- 15. What is periderm ?
- 16. Explain the respiration observed in the chlorophyllous cells only in light.
- 17. What is the significance of cohesion tension theory ?
- 18. List out the anatomical adaptations of parasites.

(5×1=5)

SECTION – D

Answer **any six**. Short essay questions. **Each** question carries a weightage of 2.

- 19. Illustrate with examples the different types of stomata.
- 20. Write notes on photosynthetic pigments.
- 21. What do you know about the different types of cambium ?
- 22. Explain symbiotic nitrogen fixation.
- 23. Discuss stomatal opening and closing by K⁺ transport theory.
- 24. Enumerate anatomical adaptations of halophytes.
- 25. Bring out the structure of chloroplast using suitable diagrams.
- 26. Describe the procedure of mass selection.

(6×2=12)