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BSCBOC 354

**Credit Based VI Semester B.Sc. Degree Examination, September 2022
(2020-21 and Earlier Batches)**

BOTANY

Plant Physiology – II and Ecology – II

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) Answer Part – **A** and Part – **B**.
 - 2) Answer **four full** questions from Part – **B** choosing **one full** question from **each** Unit.
 - 3) **All** questions in Part – **B** carry **equal** marks.
 - 4) Draw diagrams **wherever** necessary.

PART – A

1. Answer **any ten** of the following : **(10×2=20)**
- 1) What is Kranz anatomy ?
 - 2) Write any two differences between PS I and PS II.
 - 3) What is 'Source' and 'Sink' in translocation ?
 - 4) Give the R.Q value for proteins and fats.
 - 5) What is Pasteur effect ?
 - 6) What is seed dormancy ?
 - 7) Mention any two practical applications of ethylene.
 - 8) What are day neutral plants ? Give an example.
 - 9) What is seismonasty ? Give an example.

P.T.O.



- 10) What are succulents ? Give an example for leaf succulence.
- 11) Name any two ozone depleting substances.
- 12) What are Biodiversity hotspots ? Name any one hotspot of India.

PART – B

Unit – I

Answer **any four** questions choosing **one full** question from **each** Unit. (4×15=60)

2. a) Explain red drop and Emersons enhancement effect. 4
- b) Explain protoplasmic streaming theory. 4
- c) Explain the steps of light reactions of Photosynthesis. 7

OR

3. a) Write a note on path of translocation. 3
- b) Differentiate between C₃ and C₄ plants. 5
- c) Describe the factors effecting the rate of photosynthesis. 7

Unit – II

4. a) Explain the process of Alcoholic fermentation. 4
- b) Explain any four methods of breaking seed dormancy. 4
- c) Describe the steps involved in conversion of glucose to pyruvic acid. 7

OR

5. a) What is bud dormancy ? Mention the causes. 3
- b) Write any five significance of respiration. 5
- c) Give an account of Terminal Oxidation Process. 7



Unit – III

- 6. a) Write a note on tactic movements in plants. **4**
- b) Give an account of vernalization and devernialization. **4**
- c) Describe the physiological roles played by Gibberellins. **7**

OR

- 7. a) Write a note on sigmoid growth curve. **3**
- b) Explain critical day length and photoperiodic stimulus. **5**
- c) Describe the movements of locomotion in plants. **7**

Unit – IV

- 8. a) Write a note on biosphere reserves. **4**
- b) Explain any four features of shola forest. **4**
- c) What are Hydrophytes ? Explain the morphological and anatomical adaptations with suitable examples. **7**

OR

- 9. a) Explain any three effects of water pollution. **3**
 - b) Explain ex situ method of wild life conservation. **5**
 - c) What are Halophytes ? Explain the morphological and anatomical adaptations with suitable examples. **7**
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