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**BSCBOC 351**

**Credit Based VI Semester B.Sc. Examination, April/May 2017**  
**(Semester Scheme)**  
**(2015-2016 and Earlier Batches)**  
**BOTANY – VII**  
**Plant Physiology 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) **Draw diagrams wherever necessary.**
  - 4) **All questions in Part – B carry equal marks.**

**PART – A**

1. Answer **any ten** of the following :

**(2×10=20)**

- i) Define Emerson's enhancement effect.
- ii) What are action and absorption spectra ?
- iii) Write the demerits of Munch hypothesis.
- iv) Name the photosynthetic pigments.
- v) Write the balanced equation of aerobic respiration.
- vi) Mention the role of embryo in seed dormancy.
- vii) Mention any two practical applications of ethylene.
- viii) Coconut trees planted on the boundary of Areca plantations bend away. Give scientific reasons.
- ix) Name any two National Parks of Karnataka.
- x) What is vivipary ? Write its significance.
- xi) What is noise pollution ? Mention the tolerable limit of noise.
- xii) What is nastic movements ? Give an example.

**P.T.O.**



## PART - B

## Unit - I

2. a) Write a note on law of limiting factors. 4  
 b) Explain Munch model. 4  
 c) Give an account of non-cyclic photophosphorylation. 7

OR

3. a) Write a note on path of translocation. 3  
 b) Differentiate between  $C_3$  and  $C_4$  plants. 5  
 c) Explain the steps of light reactions. 7

## Unit - II

4. a) Write the schematic representation of glycolysis. 4  
 b) Explain any four methods to break seed dormancy. 4  
 c) Give the detailed account of Kreb's cycle. 7

OR

5. a) Write a note on induction of bud dormancy. 3  
 b) Explain ETS. 5  
 c) Give the detailed account on anaerobic respiration. 7

## Unit - III

6. a) Write a note on tactic movements. 4  
 b) Write a note on photoperiodic induction on short day plants. 4  
 c) Explain the physiological role of Auxins. 7

OR

7. a) Briefly explain seisomonastic movement with an example. 3  
 b) Give an account of vernalization and devernialization. 5  
 c) Describe the practical application of Gibberellin. 7



**Unit – IV**

- 8. a) Discuss any two morphological adaptations of xerophytes. 4
- b) Write a brief notes on sewage treatment. 4
- c) Explain the different methods of Ex-situ conservation. 7

OR

- 9. a) Write a note on monoculture. 3
  - b) Write a note on air pollution. 5
  - c) Discuss the ecological adaptations of hydrophytes. 7
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