

M.Sc. (Botany) (NEP Pattern) Semester-II
02MSCB-1 - Paper-V - Plant Physiology

P. Pages : 1

Time : Three Hours



GUG/S/25/15341

Max. Marks : 80

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- Notes : 1. All questions are compulsory & carry equal marks.
2. Draw well labelled diagram wherever necessary.

1. What is photo-synthesis? Write about photosynthesis physiological and ecological consideration coupled reactions. **16**

OR

Write on:

- a) C₄ Pathway. **8**
b) ATP synthesis in chloroplast. **8**

2. Write in detail about aerobic respiration. **16**

OR

Write on:

- a) Cyanide resistant chain. **8**
d) Plant mitochondrial electron transport. **8**

3. Write about mechanism of water transport through xylem. **16**

OR

Write on:

- a) Phloem loading from chloroplast to sieve elements. **8**
b) Phloem unloading sink-to-source transition. **8**

4. What are secondary metabolites? Write about bio-synthesis of alkaloids. **16**

OR

Write on:

- a) Photoperiodism and biological clocks. **8**
b) Responses of plants to biotic stresses. **8**

5. Write short notes on:
a) Photosynthetic pigments. **4**
b) Respiratory ratio. **4**
c) Materials translocated in phloem. **4**
d) Cryptochrome. **4**
