

M.Sc. (Bio-Chemistry) (NEP Pattern) Semester-II  
**STPG02BCH04 - Plant Biochemistry**

P. Pages : 1

Time : Three Hours



**GUG/S/25/16392**

Max. Marks : 80

- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Draw Neat and labelled diagram whenever it necessary.

1. Discuss in detail C4 cycle of photosynthesis. **16**  
**OR**
  - 1) Discuss the plant phytochrome. **8**
  - 2) Discuss in PS-I system of photosynthesis. **8**
2. Discuss in detail structure, biosynthesis and functions of cytokinin. **16**  
**OR**

Write a note on- **8**

  - 1) Discuss mechanisms of action of auxin.
  - 2) Discuss structure and physiological effects ethylene. **8**
3. Discuss in detail nitrogen fixation in plant. **16**  
**OR**
  - 1) Discuss the roll of secondary metabolites in defence. **8**
  - 2) Write a note on assimilation of ammonia. **8**
4. Discuss in detail biotic and abiotic plant stress response. **16**  
**OR**
  - 1) Discuss genetic basis of plant pathogen interaction. **8**
  - 2) Write a note on induced systemic resistance. **8**
5. Attempt **any eight** from following. **8x2 =16**
  - a) Enlist photosynthetic pigment present in plant.
  - b) What is photophosphorylation?
  - c) Name the enzyme which responsible for carboxylation in C3 cycle.
  - d) What is growth correlations and apical dominance?
  - e) What is the function of gibberllions?
  - f) Draw biologically active abscisic acid.
  - g) Give two examples of alkaloids.
  - h) What is a source of sulfur in plant?
  - i) Give functions of nitrogen in plant.
  - j) Give the examples of desiccation tolerance plant.
  - k) What is secondary acquired resistance?
  - l) Give the function of Jasmonate.

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