

B.Sc. III (with Credits)-Regular-Semester 2012 Sem VI  
**B.Sc.4507-Botany-I (Plant Physiology, Growth and development) Paper-I**

P. Pages : 2

Time : Three Hours



**GUG/W/16/5624**

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Illustrate your answers with suitable examples and draw Well Labelled diagrams wherever necessary.

1. Define photosynthesis? Give external and internal factors affecting on photosynthesis. **10**

**OR**

Write on –

- a) R - Q value of different Respiratory Substrate. **5**  
b) Factors affecting on Respiration. **5**
2. What is tropic movement? Give different type of tropic movements in plant. **10**

**OR**

Write on –

- a) Long day and Short day plant. **5**  
b) Senescence. **5**
3. Write Note's on –
- a) Action spectrum. **2½**  
b) Energy currency of cell. **2½**  
c) Practical Application of ethylene. **2½**  
d) Circadian Rhythm. **2½**

**OR**

- e) Structure of chl-a. **2½**  
f) Differences between aerobic and anaerobic respiration. **2½**  
g) Biosynthesis and chemical Nature of Auxin. **2½**  
h) Methods of breaking seed dormancy. **2½**

4. Write Note's on –
- a) Difference between Cyclic and Non – cyclic photophosphorylation. 2½
  - b) Terminal oxidation. 2½
  - c) Chemical Nature of Gibberellic acid. 2½
  - d) Physiological effect of ABA. 2½

**OR**

- e) Two Pigment System. 2½
- f) Significance of Respiration. 2½
- g) Factors affecting growth of plant. 2½
- h) Causes of seed dormancy. 2½

5. Write **any ten** in two to three lines only. (Diagram are not necessary any ten) **10**

- a) Absorption spectrum.
- b) Photolysis of water.
- c) Nocturnal plant.
- d) Isomerase.
- e) Cytochrome.
- f) Decarboxylation.
- g) Bekanne disease.
- h) Photo induction.
- i) Chemotactic.
- j) Devernalization.
- k) Phytochrome.
- l) Apical dominace.

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