



DHH-003-014402

Seat No. _____

M. Sc. (Sem. IV) (CBCS) Examination

May / June - 2015

Botany : B - 420

(Plant Physiology & Metabolism) (Core) (New Course)

Faculty Code : 003

Subject Code : 014402

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Q.1. Answer the following (*any seven*) 2 x 7 = 14
- How drought adaptation occurs in plants?
 - Which factors influence opening and closing of stomata?
 - What are various components of Water Potential?
 - What is florigen and vernalin?
 - Define photomorphogenesis.
 - What is Kranz anatomy?
 - What is net production of Light reaction?
 - Write synthetic and natural auxins
 - Define bioassay
 - Explain Richmond and Lang Effect
- Q.2. Answer the following (*any two*) 2 x 7 = 14
- Describe how salinity stress affects plant growth and development.
 - Describe briefly asymbiotic biological nitrogen fixation.
 - Describe physiological role and deficiency symptoms of 2 macro and 2 micro nutrients.
- Q.3. Answer the following 2 x 7 = 14
- What is Senescence ? Explain significance of senescence in physiology of plants.
 - What is dormancy? How will you separate dormant and viable seeds?
Explain the procedure.
- OR**
- Q.3. Write short notes on: 2 x 7 = 14
- Methods for breaking dormancy
 - Factors responsible for flower initiation
- Q.4. Write short notes on: 2 x 7 = 14
- Calvin Cycle
 - Non-cyclic electron transport
- Q.5. Write notes on (*any two*) 2 x 7 = 14
- Mode of auxin action
 - EMH
 - Physiological effects of ABA
 - Application of ethylene in Horticulture