



**DNN-003-023201**

Seat No. \_\_\_\_\_

**M. Phil. (Science) (Sem. II) (CBCS) Examination**

**May / June – 2015**

**B - 201 : General Botany**

*(New Course)*

**Faculty Code : 003**

**Subject Code : 023201**

Time : Hours]

[Total Marks : 70

**1 Answer the following : (any seven) 2×7=14**

- (a) What is R and K selection?
- (b) What is genetic diversity?
- (c) What is critical day length and photoinductive cycle?
- (d) What is vernalin? What is devernalization?
- (e) What are the components of water potential? How it is measured?
- (f) Discuss action spectra of photosynthesis
- (g) What is bioassay and epinasty?
- (h) Name some natural and synthetic auxins.
- (i) What is the importance of haploids in higher plants?
- (j) What is explant and embryo culture?

**2 Answer the following : (any two), 2×7 = 14**

- (a) Define and describe different Habitats.
- (b) What is Simpson's diversity index? Describe with suitable example.
- (c) Define Biodiversity indexing parameters.

**3** Answer the following **2×7 =14**

- (a) Describe briefly the passive and active absorption of mineral nutrients in plants.
- (b) Discuss the importance of light and dark period in physiology of flowering.

**OR**

**3** Answer the following **2×7 =14**

- (a) Discuss briefly with suitable examples why florigen is called a hypothetical hormone.
- (b) Describe growth curve and various phases in it. Add a note on growth indices.

**4** Answer the following **2×7 =14**

- (a) Describe briefly cyclic and non cyclic electron transport.
- (b) Describe the influence of kinetin and gibberellin on plant growth and development.

**5** Write short notes on **any two** of the following: **2×7 =14**

- (a) Selection criteria for explants and culture media
- (b) Application of tissue culture in horticulture
- (c) Role of transgenic plants in agriculture
- (d) Basic tissue culture techniques

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