



**DBW-6**

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

**B. Sc. (Botany) (Sem. II) (CBCS)**

**(W.E.F. 2019) Examination**

**July - 2022**

**B-201 : Angiosperms, Biochemistry,  
Genetics & Techniques**

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

[Total Marks : **70**

- Instructions :** (1) Answer with neat and labeled diagram wherever necessary.  
(2) Figures to the right side indicated total marks for the questions.

- 1 (a) Answer the following Objective type questions : **4**  
(1) Write down different zone of root.  
(2) Write any two name of erect stem.  
(3) Which plant has winged petiole ?  
(4) Angular divergence of alternate tristichious phyllotaxis is \_\_\_\_.
- (b) Answer in brief (any one) : **2**  
(1) Draw labeled diagram of typical leaf.  
(2) Define : Phyllotaxis.
- (c) Answer in detail (any one) : **3**  
(1) Describe Opposite phyllotaxis.  
(2) Describe functions of stem.
- (d) Write a note on (any one) : **5**  
(1) Explain : Pinnately compound leaf  
(2) Explain : Venation.

- 2** (a) Answer the following Objective type questions : **4**
- (1) What will be the arrangement of petals in Imbricate aestivation ?
  - (2) Write down names of different floral whorls.
  - (3) If ovary is superior the flower is called \_\_\_\_\_.
  - (4) What is the main function of corolla.
- (b) Answer in brief (any one) : **2**
- (1) Describe : Hypenthodium Inflorescence.
  - (2) Describe : Twisted aestivation.
- (c) Answer in detail (any one) : **3**
- (1) Write down attachment of anther in flower.
  - (2) Describe types of aestivation.
- (d) Write a note on (any one) : **5**
- (1) Explain : Racemose Inflorescence.
  - (2) What is placentation ? Explain it in detail.
- 3** (a) Answer the following Objective type questions : **4**
- (1) Write scientific name of Rose.
  - (2) Family Apocynaceae belongs to \_\_\_\_ series.
  - (3) Write down the name of book written by Bentham and Hooker.
  - (4) What is character of polypetalae ?
- (b) Answer in brief (any one) : **2**
- (1) Give the classification of Amaryllidaceae family.
  - (2) Write scientific names of any two plants of family Apocynaceae.
- (c) Answer in detail (any one) : **3**
- (1) Draw floral diagram of Amaryllidaceae family.
  - (2) Write demerits of Bentham and Hooker's classification system.

- (d) Write a note on any one : 5
- (1) Explain : Apocynaceae family with floral formula and floral diagram.
  - (2) Explain : Rosaceae family with floral formula and floral diagram.
- 4 (a) Answer the following Objective type questions : 4
- (1) Write full form of MS media.
  - (2) Who discover chromatography ?
  - (3) Spectrophotometry works on which law ?
  - (4) Which paper is used as stationary phase in Paper chromatography ?
- (b) Answer in brief (any one) : 2
- (1) Write down equation of Rf value.
  - (2) Define explant.
- (c) Answer in detail (any one) : 3
- (1) Write down Beer and Lambert's law.
  - (2) Write principle of pH meter.
- (d) Write a note on any one : 5
- (1) Describe brief accounts of Paper chromatography.
  - (2) Describe brief accounts of Spectrophotometer.
- 5 (a) Answer the following Objective type questions : 4
- (1) Who is the father of genetics ?
  - (2) Write names of nitrogen bases present in DNA.
  - (3) Who proposed Lock and Key model of enzyme action.
  - (4) Define non-essential amino acids.

- (b) Answer in brief (any one) : **2**
- (1) Write names of essential amino acids.
  - (2) State difference between nucleoside and nucleotide.
- (c) Answer in detail (any one) : **3**
- (1) Write Mendel's law of dominance.
  - (2) Draw a labeled diagram of Watson - Crick model of DNA.
- (d) Write a note on any one : **5**
- (1) Explain : Mendel's Dihybrid experiment.
  - (2) Write down only names of classes of enzyme and explain mechanism of enzyme action.
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