



Seat No. _____

HQ-003-1012006

B. Sc. (Sem. II) (CBCS) Examination

April - 2023

Botany : Paper-B-201

(Angiosperm, Tools and Techniques in Botany, Biochemistry, Genetics)

Faculty Code : 003

Subject Code : 1012006

Time : $2\frac{1}{2}$ / Total Marks : 70

Instructions :

- (1) Write answers of all questions in main answer book.
- (2) Draw neat and labelled diagram wherever necessary.
- (3) Figures to the right side indicate full marks for the questions.

- 1 (a) Objective type questions : 4
- (1) Define : shrub.
 - (2) Dicot plant which type of venation is mainly found ?
 - (3) What is node ?
 - (4) Define : Stipules.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Draw only labelled diagram – tap root.
 - (2) Write the function of leaf.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain the types palmately compound leaf.
 - (2) Write the function of stem.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain the types of phyllotaxy.
 - (2) Explain the typical leaf.

- 2 (a) Objective type questions : 4
- (1) Write two examples of cymose inflorescence.
 - (2) Define : Perianth.
 - (3) Parts of typical carpels known as _____
 - (4) Write the symbols of androecium.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Give the legume fruits.
 - (2) Define the spadix inflorescence.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Short note on aggregate fruits.
 - (2) Draw only labelled diagram – typical flower.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Describe the types of placentation.
 - (2) Explain the types of racemose inflorescence.
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- 3 (a) Objective type questions : 4
- (1) Write the scientific name of Jasud.
 - (2) Write the scientific name of Bougainvillea.
 - (3) Write the scientific name of Barmasi.
 - (4) Write the scientific name of Maize.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the classification of malvaceae family without reasons.
 - (2) Write the classification of poaceae family without reasons.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain the floral formula and draw floral diagram of mirabilis jalapa.
 - (2) Explain the floral formula and draw floral diagram of Nerium indicum.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Describe floral characters of malvaceae family with floral diagram.
 - (2) Describe floral characters of poaceae family with floral diagram.

- 4 (a) Objective type questions : 4
- (1) Write the full form of SEM.
 - (2) Chromatography is discovered by _____
 - (3) Write the full form of TEM.
 - (4) What is the function of eye piece in light microscope ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the principles of chromatography.
 - (2) Describe the principles of colorimeter.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write down steps of measurement of pH.
 - (2) Give three differences between light microscope and electron microscope.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain the SEM.
 - (2) Describe the step and application of tissue culture.
- 5 (a) Objective type questions : 4
- (1) Write full form of RNA.
 - (2) Which type of main BOND found in protein structure ?
 - (3) Write any two name of amino acid.
 - (4) Who is the father of genetic ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Give the three characters of amino acids.
 - (2) Write the two function of enzyme.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write the pyrimidine type of nitrogen base.
 - (2) Draw only structure of DNA.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain the dihybrid experiment.
 - (2) Explain the mechanism of enzymes.
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