



Seat No. _____

HQ-6

B. Sc. (Sem.-II) (CBCS) (W.E.F. 2019) Examination

April - 2023

B-201 : Angiosperms, Bioche., Genetics & Techniques

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

- 1 (A) Objective type questions (All are compulsory) : 4
- (1) Name the plant habit according to the environmental condition.
 - (2) What is the function of maturation region of root ?
 - (3) Name the parts of a simple leaf.
 - (4) Name the types of root.
- (B) Answer in brief (Any 1 out of 2) : 2
- (1) What is the leaf apex of *Vinca*, *Ficus religiosa*, *Banana* and *Bauhania* ?
 - (2) What is the leaf shape of *Vinca*, *Neem(Melia)*, *Bauhania* and *Fenugreek* ?
- (C) Answer in detail (any 1 out of 2) 3
- (1) Explain : Types of Venation.
 - (2) Explain : Leaf Margin.
- (D) Write a note on Any 1 out of 2 : 5
- (1) Describe : Phyllotaxis
 - (2) Describe : Types of leaves.
- 2 (A) Objective type questions (All are compulsory) : 4
- (1) Define : Hypogynous flower.
 - (2) Name the petals of *Papillionaceous corolla*.
 - (3) What is the difference between Bilabiate and personate corolla ?
 - (4) Which type of corolla is in the *Datura* ?
- (B) Answer in brief (Any 1 out of 2) : 2
- (1) Types of Placentation (Only Draw).
 - (2) Types of aestivation (Only Draw).

- (C) Answer in detail (any 1 out of 2) 3
- (1) Explain uniparous cymose inflorescences.
 - (2) Explain : Spikelet Racemose Inflorescence.
- (D) Write a note on Any 1 out of 2 : 5
- (1) Describe : Special type of Inflorescences.
 - (2) Describe : Racemose, spike, Catkin, Spadix and Capitulum Racemose Inflorescence.
- 3** (A) Objective type questions (All are compulsory) : 4
- (1) The name of book written by Bentham and Hooker is ?
 - (2) The full form of ICBN is ?
 - (3) Write the particular sequences of Plant Classification.
 - (4) Name the system of classification.
- (B) Answer in brief (Any 1 out of 2) : 2
- (1) Write floral formula of any plant of *Amaryllidaceae* family.
 - (2) Write Botanical name of two species of Apocynaceae.
- (C) Answer in detail (any 1 out of 2) 3
- (1) Write note on : Merits and Demerits of Bentham and Hooker system.
 - (2) Write the general characters of *Amaryllidaceae* family.
- (D) Write a note on Any 1 out of 2 : 5
- (1) Classify the *Rosaceae* family with its floral formula and floral diagram.
 - (2) Classify the *Apocynaceae* family with its floral formula and floral diagram.
- 4** (A) Objective type questions (All are compulsory) : 4
- (1) What is cellular totipotency ?
 - (2) What is the role of Auxin and Cytokinin in plant tissue culture ?
 - (3) Name the electrodes of a pH meter ?
 - (4) Which type of spectrum is used in Spectrophotometers ?
- (B) Answer in brief (Any 1 out of 2) : 2
- (1) Write principle of Spectrophotometer.
 - (2) Write principle of pH meter.

- (C) Answer in detail (any 1 out of 2) **3**
(1) Write functions of Spectrophotometer.
(2) Write functions of pH meter.
- (D) Write a note on any 1 out of 2 : **5**
(1) What is principle of paper chromatography ? Explain its applications.
(2) Describe applications of plant tissue culture.
- 5** (A) Objective type questions (All are compulsory) : **4**
(1) Who is father of Genetics ?
(2) Give examples of Esterases.
(3) What is Isomerases ?
(4) By whom enzyme was first introduced ?
- (B) Answer in brief (Any 1 out of 2) : **2**
(1) Write note on : Lock and Key Hypothesis.
(2) Give note on : Induced fit Hypothesis.
- (C) Answer in detail (any 1 out of 2) **3**
(1) Explain : DNA Replication.
(2) Write all three Mendel's law of Inheritance.
- (D) Write a note on Any 1 out of 2 : **5**
(1) Explain : Translation in synthesis of polymer of amino acids.
(2) Describe : Mendel's dihybrid experiment.
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