

**B.Sc. Semester - 2 (CBCS) Examination**  
**June/July-2022 [NEW COURSE]**  
**BOTANY (CORE)**

**Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
  2. Figures to the right indicate marks.
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**Q.1 Answer the following questions as per instruction.****(A) Answer in very short.****04**

- (1) State the main parts of leaf.
- (2) Define: Habitat.
- (3) Match the column A and B:

Column –A

- A    Entire  
B    Wavy  
C    Serrate

Column –B

- 1    Rose  
2    Mangifera  
3    Polyalthia

- (4) In which type of aestivation, the petals lie close to each other and margins are not overlapping?

**(B) Answer in brief (Any one)****03**

- (1) Explain: Types of root.
- (2) Explain: Characteristics of stem.

**(C) Answer in detail (Any one)****07**

- (1) Describe: Different type of leaf stipules.
- (2) Explain : Type of palmately compound leaf.

**Q-2 Answer the following questions as per instruction.****(A) Answer in very short.****04**

- (1) State the names of the special types Inflorescence.
- (2) Name wall of the fruit.
- (3) In which type of flower androecium is present but gynoecium is absent?
- (4) In spikelet the perianth is reduced to scaly structures is called .....

**(B) Answer in brief (Any one)****03**

- (1) Define: vexillary aestivation with diagram and example.
- (2) Describe: the different position of ovary.

**(C) Answer in detail (Any one):****07**

- (1) Describe: various types of placentation.
- (2) Describe simple fleshy fruits with example.

**Q.3 Answer the following questions as per instruction.****(A) Answer in very short:****04**

- (1) Write the floral formula of Apocynaceae family.
- (2) Who wrote the book Genera Plantarum?
- (3) What is the botanical name of wheat?
- (4) Give the vernacular names of following plants *Sida cordifolia*, *Abutilon indicum*.

**(B) Answer in brief. (Any one)****03**

- (1) Describe distinctive characters of Poaceae family.
- (2) State the merits of Bentham and Hookers classification system.

**(C) Answer in detail. (Any one):** **07**

- (1) Describe: characteristic of Nyctaginaceae family floral formula, floral diagram and examples.
- (2) Describe: characteristic of Marvaceae family with floral formula,floral diagram and examples.

**Q.4 Answer the following questions as per instruction.**

**(A) Answer in very short.** **04**

- (1) Which type of paper is used in paper chromatography?
- (2) Give the name of electrodes used in pH meter.
- (3)  $R_f$  means? Give formula.
- (4) What is explants?

**(B) Answer in brief. (Any one):** **03**

- (1) Write notes on: Nutrient media for tissue culture.
- (2) Give procedure of colorimetry.

**(C) Answer in detail. (Any one) :** **07**

- (1) Describe: the structure of light microscope.
- (2) Explain: Types of paper chromatography.

**Q-5 Answer the following questions as per instruction.**

**(A) Answer in very short.** **04**

- (1) Which enzyme unwind the DNA strands?
- (2) The first step in  $\beta$ -oxidation process involves the activation of fatty acid in the presence of  
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- (3) What do you mean by “P” and “A” site on Ribosome’s?
- (4) What is enzyme action?

**(B) Answer in brief. (Any one)** **03**

- (1) Discuss: the difference between cofactors and coenzyme.
- (2) Give schamatic representation of  $\beta$ -oxidation of fatty acid.

**(C) Answer in detail. (Any one)** **07**

- (1) Describe the process of translation in protein synthesis.
- (2) Explain: The steps of initiation in DNA replication of E.coli.

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