

B.Sc. Semester - 2 (CBCS) Examination
July-2025 (OLD 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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- Que.1(A) Answer the following questions very shortly (04)
- 1) Define "Habit"
 - 2) What is Phyllotaxis?
 - 3) Name type of leaf venation.
 - 4) Which type of leaf shape in Hibiscus plant leaf?
- Que.1(B) Give the answer of any one (02)
- 1) Name two primary functions of a plant root.
 - 2) Briefly define "Habit" and "Habitat".
- Que.1(C) Give the answer of any one (03)
- 1) Explain the concept of Venation in leaves and mention two common types.
 - 2) Describe the differences between the structure of a typical root and stem.
- Que.1(D) Give answer of any one (05)
- 1) Write a short note on a various type of leaves.
 - 2) Write a short note on a stipules, leaf base, leaf apex.
- Que.2(A) Answer the following questions very shortly (04)
- 1) Give name of a special types of inflorescence
 - 2) Draw the floral diagram of Poaceae family and one example
 - 3) What is function of calyx?
 - 4) Define "perianth"
- Que.2(B) Give the answer of any one (02)
- 1) Define hypogynous floral symmetry
 - 2) Differentiate between a raceme and a cyme inflorescence
- Que.2(C) Give the answer of any one (03)
- 1) Describe the various types of Placentation found in flowering plants.
 - 2) Discuss the functions of the corolla and briefly explain aestivation.
- Que.2(D) Give answer of any one (05)
- 1) Write a short note on the Androecium and Gynoecium
 - 2) Write a short note on the Structure of a typical flower main parts(Bract, pedicel, calyx, corolla and perianth)
- Que.3(A) Answer the following questions very shortly (04)
- 1) Draw the floral diagram of Sida cordifolia.
 - 2) Any two example of Nyctaginaceae family.
 - 3) Give the scientific name of yello oleander.
 - 4) Floral formula of Poaceae family.
- Que.3(B) Give the answer of any one (02)
- 1) Briefly list of two merits of Bentham and Hooker classification.
 - 2) Name two distinguishing characters of a Poaceae family.
- Que.3(C) Give the answer of any one (03)
- 1) Discuss the economic importance of Malvaceae and Apocynaceae family.
 - 2) Explain of three demerits of Bentham and Hooker classification.

- Que.3(D) Give answer of any one (05)
- 1) Write a short note on Apocynaceae Family.
 - 2) Write a short note on Malvaceae.
- Que.4(A) Answer the following questions very shortly (04)
- 1) Electron microscope was invented by _____?
 - 2) What is the resolving power of light microscope?
 - 3) Who is discovered Chromatography?
 - 4) Define “pH”.
- Que.4(B) Give the answer of any one (02)
- 1) What is Rf value.
 - 2) Define pH. Why pH is necessary for all living organisms?
- Que.4(C) Give the answer of any one (03)
- 1) Colorimeter: Explain in detail.
 - 2) Explain in Detail: Light microscope.
- Que.4(D) Give answer of any one (05)
- 1) Write a short note on Chromatography.
 - 2) Write a short note on Electron microscope.
- Que.5(A) Answer the following questions very shortly (04)
- 1) Who proposed Semi-conservative model of DNA?
 - 2) Define “ β -Oxidation”
 - 3) What is Enzyme?
 - 4) Mendel used which plant for his experiment?
- Que.5(B) Give the answer of any one (02)
- 1) Write role of each enzyme involved in β -oxidation of fatty acids.
 - 2) Write characteristics of Amino acids.
- Que.5(C) Give the answer of any one (03)
- 1) Explain Shortly: Protein Synthesis.
 - 2) Explain in Shortly: DNA Replication.
- Que.5(D) Give answer of any one (05)
- 1) Write a short note on structure of DNA.
 - 2) Write a short note on β -Oxidation.
