

B.Sc. Semester - 5 (CBCS) Examination
July-2025 (Old Course)
BIOLOGY OF SEED PLANTS (CORE)

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

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1(A) Answer any one question in detail. (07)

- 1) Reproductive structure of Gnetum.
- 2) Reproductive structure of Ephedra.

Que.1(B) Shortly answer any one question. (04)

- 1) Describe the T.S. of Ephedra young stem.
- 2) Describe the T.S. of Gnetum leaf.

Que.1(C) Answer the following question very shortly. (Any Three) (03)

- 1) In which forest region Gnetum mostly occurs?
- 2) How many fertile bracts are present in the female cone of Ephedra?
- 3) Fill in the blanks: The fused cup like bracts in the cone of Gnetum are called _____
- 4) True or false: Endosperm in Gnetum and Ephedra is triploid.
- 5) Which species of Ephedra is exists in dry region of our country.

Que.2(A) Answer any one question in detail. (07)

- 1) Describe the Bentham and Hookers classification system in detail.
- 2) Write down detail note on concept of family.

Que.2(B) Shortly answer any one question. (04)

- 1) Give the demerits of Bentham and Hooker classification system.
- 2) Give the merits of Bentham and Hooker classification system.

Que.2(C) Answer the following question very shortly. (Any Three) (03)

- 1) Who is known as father of taxonomy?
- 2) Who was the first to give concept of species?
- 3) True or false: Taxonomic group belonging to any one of the taxonomic Categories is known as taxon.
- 4) Fill in the blank: _____ is the one specimen or other element designated by the author as the nomenclature type.
- 5) Define: Taxonomy.

Que.3(A) Answer any one question in detail. (07)

- 1) Describe Bignoniaceae family characteristics with floral diagram, floral formula and two examples of plants.
- 2) Describe Convolvulaceae family characteristics with floral diagram, floral formula and two examples of plants.

Que.3(B) Shortly answer any one question. (04)

- 1) Describe distinguishing characters of Tiliaceae family.
- 2) Describe distinguishing characters of Rosaceae family.

Que.3(C) Answer the following question very shortly. (Any Three) (03)

- 1) Fill in the blanks: The sepals of solanaceae family is _____
- 2) How many carpels and ovules present in capparidaceae?
- 3) Give the name of family which you studied and come under calyciflorae series.
- 4) State the types of inflorescence in Asteraceae family.
- 5) Give the scientific name of zipto plant.

Que.4(A) Answer any one question in detail. (07)

- 1) Describe Solanaceae family characteristics with floral diagram,floral formula and two examples of plants.
- 2) Describe Polygonaceae family characteristics with floral diagram,floral formula and two examples of plants.

Que.4(B) Shortly answer any one question. (04)

- 1) Describe distinguishing characters of Cypraceae family.
- 2) Describe distinguishing characters of Amaranthaceae family.

Que.4(C) Answer the following question very shortly. (Any Three) (03)

- 1) Write the classification of Cypraceae family.
- 2) Give the series and order name of Amaranthaceae family.
- 3) Explain parianth with reference to canaceae family.
- 4) Fill in the blank: Hairy pappus is a characteristics of _____ family.
- 5) Give the Botanical name of kantado dabho.

Que.5(A) Answer any one question in detail. (07)

- 1) Discuss the embryo development in monocotyledons.
- 2) Discuss the embryo development in dicotyledons.

Que.5(B) Shortly answer any one question. (04)

- 1) State the characters of Pollen grain.
- 2) State the functions of endosperm.

Que.5(C) Answer the following question very shortly. (Any Three) (03)

- 1) True or false: In monocots the cotyledon occupies the tip of the embryonal axis.
- 2) Give the full form of PEMC.
- 3) In angiosperm, each pollen grain produces two male cells. What do these sperms do in the fertilization?
- 4) Give only names of any two factors affecting pollen grin germination.
- 5) Give one common example which shows mosaic endosperm.
