647510 **BSCseeCC5020** **Seat No :_____**

B.Sc. Semester - 5 (*CBCS*) Examination
Oct/Nov. - 2023(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 **Give the answer of following questions.**

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

1. Reproductive structure of *Ephedra.*
2. Reproductive structure of *Gnetum.*

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

1. Describe the leaf anatomy of *Gnetum.*
2. Describe the T.S. of *Ephedra* young stem.

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

1. Give the name of fossil plant stem was covered by persistent leaf base as we find in *Cycas*.
2. True or false: Endosperm in *Gnetum* and *Ephedra* is triploid.
3. Gnetum stem cortex is differentiated in to how many layers? State its name.
4. Which species of *Ephedra* is exists in dry region of our country.
5. State two type of shoot and leaf morphology in *Gnetum*.

Que-2 **Give the answer of following questions.**

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

1. Write down detail note on concept of family.
2. Describe the principles of taxonomy.

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

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

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

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

Que-3 **Give the answer of following questions.**

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

1. Describe canaceae family characteristics with floral diagram, floral formula and two examples of plants.
2. Describe Solanaceae 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 Rosacea family.
2. Describe distinguishing characters of Convolvulaceae family.

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

1. Explain the unique structure of androecium in Asclepidaceae.
2. State the types of inflorescence in Asteraceae family.
3. Give the scientific name of zipto plant.
4. Give the name of family wich you studied and come under caryciflorae series.
5. How many carpels and ovules present in capparidaceae?

Que-4 **Give the answer of following questions.**

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

1. Describe Polygonaceae family characteristics with floral diagram, floral formula and two examples of plants.
2. Describe Bignoneaceae 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 Tiliaceae family.
2. Describe distinguishing characters of cypraceae family.

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

1. Give the Botanical name of kantado dabho.
2. Give the series and order name of Amaranthaceae family.
3. Fill in the blank: The sepals of solanaceae family is _____
4. Give the floral formula of Asclepidaceae.
5. Explain parianth with reference to canaceae family.

Que-5 **Give the answer of following questions.**

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

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

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. Fill in the blank: Suspensor is component of _____ embryo.
2. In angiosperm, each pollen grain produces two male cells. What do these sperms do in the fertilization?
3. As the consequence of triple fusion, a male gamete fuses with the Secondary nucleus, a triploid structure shortly called PEMC, give full form of PEMC.
4. What is aleurone tissue?
5. Fill in the blank: In monocot embryo radicle is produced by_____.

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