

B.Sc. Semester - 5 (CBCS) Examination
December -2020 (NEW COURSE)
Biology of Seed Plants (Core)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

Q-1 Answer the following questions as per instruction.**(A) Answer in very short:****04**

1. Define: Taxonomic category.
2. How many volume and in which language *Genera plantarum* is written?
3. Why are the classification systems changing every now and then?
4. What will happen as we go higher from species to kingdom in taxonomic hierarchy?

(B) Answer in brief (any one):**03**

1. Give conceptual understanding of taxon family.
2. What do you mean by species? Discuss the concept of species at various levels.

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

1. Describe time and place of origin of Angiosperm
2. Discuss: merits and demerits of Engler and Prantals system of classification.

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

1. Give the technical term: Filament free and anther united.
2. Name any two scientific name of plant having Pollinium?
3. Name the family having involucre bract.
4. Give the floral formula of *Convolvulus arvensis*?

(B) Answer in brief (any one):**03**

1. What are the unique features of following?
(a) Gynoecium in Cyperaceae (b) Inflorescence of Asteraceae
2. Place the following Genera to their respective families and indicate their economic importance:
(a) *Digera* (b) *Lycopersicum* (c) *Cryptostegia*

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

1. Exclusively on the basis of the gynoecium and androecium how would you distinguish the following families?
(a) Cucurbitaceae from Lythraceae (b) Convolvulaceae from Asclepiadaceae (c) Amaranthaceae from Polygonaceae
2. Enumerate the salient features of any two families listed below and discuss their systematic position:
(a) Cannaceae (b) Bignoniaceae (c) Tiliaceae

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

1. In which series Apetalous families are included?
2. Which type of fruit is observed in Henna?
3. In which plant both androphore and gynophore are present?
4. Which family is commonly known as 'Sedge' family?

(B) Answer in brief (any one):**03**

1. Scientific and local names of four vegetable plants of the family Solanaceae.
2. Write an account of floral structure of Solanaceae family.

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

1. Give distinguishing features of family of *Tacoma* genus and give its floral formula and floral diagram.
2. Give systematic position, salient features, and scientific name of two plants of family Polygonaceae.

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

(A)Answer in very short:

04

1. Name the types of endosperm based on the nature of food materials.
2. State the role of suspensor in embryo development.
3. Who produces male gametes?
4. In which plant cellular endosperm is common?

(B)Answer in brief (any one):

03

1. Draw a chart showing the fate of cells of a Monocot embryo development.
2. Explain significance of polyembryony.

(c) Answer in detail (any one):

07

1. What is embryo culture ? describe its method and applications.
2. Describe with diagrams: Development of embryo in plant of Brassicaceae family.

Q-5 Answer the following questions as per instruction.

(A)Answer in very short

04

1. Which type of fatty oil is obtained from castor seed?
2. What is lint and fuzz fibre of Cotton?
3. Which popular oil seed crop of Saurashtra is used to making margarine?
4. Give scientific name and family of Flax.

(B)Answer in brief (any one):

03

1. Describe cultivation and harvesting of Tobacco.
2. Discuss morphological characters of coffee plants

(C)Answer in detail (any one):

07

1. Describe major processes of manufacture of black Tea
2. What is curing of Tobacco? Discuss four common methods of tobacco curing.
