

B.Sc. Semester - 5 (CBCS) Examination
Oct/Nov - 2021 (NEW 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.

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

1. Define: family.
2. What do you mean by taxon?
3. Name the book in which classification of Engler and Prantal is given?
4. What will happened as we go lower from kingdom to species in taxonomic hierarchy?

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

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

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

1. Describe Gnetales theory of origin of Angiosperm
2. Discuss:merits and demerits of Bentham and Hookers system of classification.

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

1. Give the technical term: Stamens united throughout their whole length
2. Hairy pappus is a characteristics of family?
3. Name the family having 3 angled stem and 3-ranked leaves with closed sheaths.
4. Give vernacular name of *Coccinia grandis*?

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

1. What are the unique features of following?
(a) androecium in Canaceae (b) Inflorescence of Asteraceae
2. Place the following Genera to their respective families and indicate their economic importance:
(a) Lawsonia (b) Capsicum (c) Antigonon

(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) Cypraceae (b) Moraceae (c) Anonaceae

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

1. In which series *Tecoma* plant are included?
2. Which type of fruit is observed in *Cucumis*?
3. In which plant both androphore and gynophore are present?
4. Give the technical term: An anther dehiscing towards the periphery of flower

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

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

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

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

- Q-4. Answer the following questions as per instruction. (04)**
- (A) Answer in very short:**
1. Define: Endosperm
 2. State the role of Apical octant in embryo development.
 3. What is adventive polyembryony?
 4. In which plant cellular endosperm is common?
- (B) Answer in brief (any one): (03)**
1. Explain: types of Embryo.
 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. (04)**
- (A) Answer in very short**
1. Which type of fatty oil is obtained from Sesame 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 *Sarsav*.
- (B) Answer in brief (any one): (03)**
1. Describe Flue curing of Tobacco.
 2. Discuss morphological characters of *Thea* plants
- (C) Answer in detail (any one): (07)**
1. Describe major processes of manufacture of coffee
 2. Name main fibre yielding families ? Discuss four common fibre yielding plants of Gujarat.
