RANIGANJ GIRLS' COLLEGE

MODEL QUESTIONS-I

BOTANY [HONOURS]

SEMESTER-II

PAPER- CC-IV (Morphology and Plant Anatomy) Course code: BSCHBOTC204

F.M: 40 **Time: 2 Hours**

The figure in the right-hand margin indicates marks.

Candidates are required to give their answer in their own words as far as practicable.

1. Answer any five questions of the following: 1×5=5
   (a) Define porogamy.
   (b) Define lodicule.
   (c) What is floral formula?
   (d) Define gynostamium.
   (e) Define gynobasic style.
   (f) Define albuminous seed.
   (g) Define exalbuminous seed.
   (h) Define stylopodium.
   (i) Mention the nature of coconut water.
   (j) Define phyllode.
   (k) Define anthophore.
   (l) Define gynophores.
   (m) Define androphore.
   (n) Define carpophore.
   (o) What do you mean by petaloid staminode?
   (p) Name one dicot plant where parallel venation is observed.
   (q) Name one monocot plant where reticulate venation is observed.
   (r) What is amphitropous ovule?
   (s) Define leaf gap.
   (t) What do you mean by Quiscent centre?
   (u) Define lacunate and lamellar collenchymas with examples.
   (v) Define sterome.
   (w) Define rhytidome.
   (x) Cite one example on sunken-stomata is to be found.
   (y) Cite one example where multiple epidermis is to be found.
   (z) Define cystolisth.
2. Answer any five questions of the following: 2×5=10
   (a) Distinguish between scorpoid and helicoids cyme.
   (b) What is jaculator? Mention its function.

(c) Define heterophylly and anisophylly.
(d) Mention two differences between heart and sap wood.
(e) Define tylosis and tylosoid.
(f) Distinguish between libriform fibre and fibre tracheids.
(g) Define calyptrogens.
(h) What is tunica-corpus theory?
(i) Mention the ecological importance of sunken stomata.

3. Answer any three questions of the following: 5×3=15
(a) Discuss briefly the contrivances for cross pollination with examples. Mention the significance of cross pollination. 4+1=5
(b) Define double fertilization. Draw and label the longitudinal section of a typical orthotropous ovule. 2+3=5
(c) Distinguish between adhesion and cohesion. Mention the different types of cohesion of stamen with suitable examples. 2+3=5
(d) Distinguish between adhesion and cohesion. Mention the different types of adhesion of stamen with suitable examples. 2+3=5
(e) Write a short note on spikelet inflorescence. Define perianth. 4+1=5
(f) Mention different types of acyclic phyllotaxy with examples. Define angular divergence. 4+1=5
(g) Distinguish between simple polyembryony and cleavage polyembryony.
(h) Describe in brief about different types of scleroids found in Angiosperm with suitable examples.
(i) Draw and describe different types of vascular bundles with examples.

4. Answer any one questions of the following: 10×1=10
(a) Classify different types of racemose inflorescence with examples. Briefly describe the structure of an exalbuminous seed. 6+4=10
(b) Draw and describe monocot embryo development. Define ornithophilly and chiropterophilly. 7+3=10
(c) Describe the different type of composite leaves with example. Define lyrate and pedate type of leaf. 8+2=10
(d) Classify different types of simple fruit with examples. Define parthenogenesis. 8+2=10
(e) What is geitenogamy and xenogamy? Mention the contrivances of self pollination. 4+6=10
(f) Define placentation. Mention different types of placentation with examples. Explain which one among them is most evolved. 1+7+2=10
(g) What is mechanical tissue? Discuss the properties and distribution of mechanical tissue in higher plants. 2+8=10

(h) What is vascular transition and where such transition zone is located in plants? Discuss different root-stem transitions in higher plants with labeled sketches. 2+6+2=10

(i) What is shhot apex? Describe the shoot apex in the light of different theories. 2+8=10

(j) What is anomalous secondary growth? With suitable diagram describe the anomalous secondary growth occurs in Dracaena and Strychnos. 2+4+4=10

(k) Mention different types of steles with examples. Explain which one among them is most evolved. 8+2=10