

Govt. General Degree College at Kaliganj

Test Examination

2018

Part-II Botany (Honours)

Full Marks= 75

Time= 4 hrs.

Group-A

Pteridophyta (Marks: 15)

1. Answer briefly: 1x3
 - (i) Name one pteridophyte used as medicine.
 - (ii) What is 'enation'?
 - (iii) Name a leptosporangiate pteridophyte.
2. Answer any one: 2x1
 - (i) Differentiate between apogamy and apospory with example in each.
 - (ii) Differentiate between homosporous and heterosporous pteridophyte with example in each.
3. Answer any one: 10x1
 - (i) Explain the origin of Psilopsida, Lycopsida and Pteropsida according to Zimmerman concept.
 - (ii) Describe the development of male gametophyte of *Selaginella* with proper diagram. Write anatomical features of *Lepidodendron* stem. 6+4

Gymnosperm (Marks: 10)

4. Answer any one: 1x1
 - (i) Name one species of *Ginkgo*.
 - (ii) Write two diagnostic features of the order Bennettitales.
5. Answer any two: 2x2
 - (i) Give a brief account of *Cycas* distribution in India.
 - (ii) Mention the geological distribution of *Lyginopteris oldhamia* (reconstructed).
 - (iii) Mention four economically important gymnosperm.
6. Answer any one: 5x1
 - (i) Describe the structural detail of *Ginkgo* male flower.
 - (ii) Discuss structural features of *Williamsonia seawardiana* (reconstructed).

Palaeobotany (Marks: 10)

7. Answer any one: 10x1
 - (i) Mention major events of plant life through geological ages.
 - (ii) Discuss different modes of preservation of fossils (according to Schopf, 1975).

Group-B

Taxonomy (Marks: 30)

1. Answer any two of the following: 1x2
- (i) Define Phenetics.
 - (ii) What is Monograph.
 - (iii) What do you mean by Synapomorphy?
2. Answer all of the following: 2x3
- (i) Differentiate between Homonym and Superfluous name with example in each.
 - (ii) Distinguish stamens of Cucurbitaceae and Asteraceae.
 - (iii) What is omega taxonomy?
3. Write short notes on (any two): 6x2
- (i) Principles of Priority and its limitations.
 - (ii) Nomenclatural type.
 - (iii) Explain the author citations of the following:
 - (a) *Salvia moorcroftiana* Wall. ex Benth.
 - (b) *Fioria vitifolia* (L.) Mattei Boll. *Reale Orto Bot. Palermo ser.2*, 2: 72. 1917.
Hibiscus vitifolius L. *Sp.Pl.* 1753.
 - (c) *Delphinium viscosum* Hook. f. et Thompson
4. Answer any one of the following:
- (i) Give the broad outline of any Natural Classification you have studied. Mention the Publication with year. Write two merits and two demerits of this classification. Why it is regarded as Natural classification. 6+1+2+1
 - (ii) With the help of suitable diagrams compare the floral Characters of Orchidaceae and Alismataceae. Write down the apomorphies of Orchidaceae. Mention two economically important plants of Asteraceae. 6+3+1

Angiosperm Morphology & Embryology (Marks: 10)

5. Answer any one: 1x1
- (i) Name one plant where Dichasium cyme is noted.
 - (ii) What is filiform appendage?
6. Answer any two: 2x2
- (i) What is Carpophore? Where do you find it?
 - (ii) What is gynostemium?
 - (iii) Mention two contrivances of Cross Pollination.
7. Answer any one: 5x1
- (i) Briefly discuss the embryo sac development in *Capsella*.
 - (ii) Describe the types of dehiscent fruits found in Angiosperms with suitable illustrations and examples.