



DSC – 290

III Year B.Sc. Examination, September/October 2012

Directorate of Distance Education

BOTANY

**Paper – III : Morphology, Taxonomy of Angiosperms Economic Botany
and Cytogenetics**

Time : 3 Hours

Max. Marks : 75/85

- Instructions :**
- 1) *Students who have attended 25 marks IA scheme will have to answer for total of 75 marks.*
 - 2) *Students who have attended 15 marks IA scheme will have to answer for total of 85 marks.*
 - 3) **ONE** mark questions should be answered in first **TWO** pages of the answer book.
 - 4) Draw **neat** labelled diagrams **wherever** necessary.
 - 5) Question No. **V** is **compulsory** for **85** marks scheme only.

I. Simple answer questions. Answer in **a word** or **phrase** or **sentence**. **(10×1=10)**

- 1) What is test cross ?
- 2) Name the fruit of paddy.
- 3) What is stylopodium ?
- 4) Define cladode.
- 5) What is “aestivation” ?
- 6) Who discover the Golgi complex ?
- 7) What is euploidy ?
- 8) Write the botanical name of mustard.
- 9) What is epigeal germination ?
- 10) Name the fruit of coriander.

II. Short answer questions. Write **any FIVE** of the following : **(5×3=15)**

- 11) What is phyllotaxy ? Mention the types.
- 12) Describe the sandwich model of cell membrane.
- 13) Explain type of chromosome based on position of centromere.
- 14) Describe the subaerial modification of stem.

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- 15) Why Mendel select *Pisum sativum* for his experiment.
- 16) Explain cymose inflorescence types.
- 17) Differentiate Legume and Lomentum with example.

III. Medium answer question. Answer **any FIVE** of the following : **(5×6=30)**

- 18) Enumerate the salient features of caesalpiaceae.
- 19) Describe the types of fleshy fruits.
- 20) Explain supplementary factors with plant example.
- 21) Give an account on Spices.
- 22) Explain different type of special type of inflorescence.
- 23) Write the botanical name and families of the following :
 - a) Sugar cane
 - b) Ragi
 - c) Safflower
 - d) Cocoa
 - e) Clove
 - f) Coir.

IV. Long answer question. Answer **any TWO** of the following : **(2×10=20)**

- 24) Describe the salient feature of cucurbitaceae and myrtaceae.
- 25) Discuss the salient feature of Bentham and Hooker classification. Mention its merits and demerits.
- 26) Describe allopolyploidy with reference to Raphano brassica and significance of polyploidy.
- 27) Write a note on components of cell.

V. (**Compulsory** question for **85** marks scheme only). Answer **any ONE** of the following. **(1×10=10)**

- 28) Enumerate the salient features of Poaceae and Liliaceae. Mention any two plants with their botanical name of the above families.
- 29) Write a note on any five medicinal plants you have studied.