

B.Sc. V Semester Degree Examination, November/December 2016  
BOTANY

Paper : V (5.1) : Internal Structure, Development and Reproduction in  
Flowering Plants (Plant Anatomy & Embryology)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer **all** questions from Part – I.  
2) Answer **any ten** questions from Part – II.  
3) Labelled diagram will enhance value of answer.

PART – I

I. Answer the following questions.

(2×8=16)

- 1) What is Nemece-phenomen ? Give example.
- 2) What is epistase ? Mention the function.
- 3) What is malacophily ?
- 4) What is palynology ?
- 5) What are motor cells ? Mention the function.
- 6) What are complementary cells ? Mention the function.
- 7) Define dendrochronology.
- 8) What are passage cells ? Mention the function.

PART – II

II. Answer **any four** of the following questions.

(4×4=16)

- 9) What is polyembryony ? Briefly explain the types.
- 10) What is endosperm ? Explain cellular endosperm with diagram.
- 11) Explain the types of embryosacs.
- 12) Explain the types of meristematic tissues based on their location in the plant body.



13) What are sclerids ? Explain the types with diagrams.

14) Draw a neat labelled diagram of T.S. of cucurbita stem.

III. Answer **any six** of the following questions.

(6×8=48)

15) What is microsporogenesis ? Explain with diagrams.

16) What is double fertilization ? Explain the process with diagram.

17) Mention the Abiotic and Biotic agents of cross-pollination and explain the pollination in Vallisneria.

18) Explain the development of cruciferae type of embryo.

19) Explain the types of vascular bundles.

20) Describe the normal secondary growth in dicot stem.

21) Draw a neat labelled diagram of abnormal structure of Boerhaavia stem.

22) What are conducting tissues ? Explain food conducting tissue.



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Paper – VI (5.2) : BOTANY

Ecology, Environmental Biology, Conservation and Management of  
Plant Resources

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Questions of Part – I are **compulsory**.  
2) Answer **any 10** questions from Part – II.  
3) **Labelled** diagrams will **enhance** the value of answer.

PART – I

- I. Answer the following in brief : (2×8=16)
- 1) What is parasite food chain ?
  - 2) What are deserts ?
  - 3) What is habitat ecology ?
  - 4) What are xeroplasic xerophytes ?
  - 5) What is radioactive fall out ?
  - 6) What is Marble leprosy ?
  - 7) What are the effects of noise pollution ?
  - 8) What is the method suggested by NEERI for sewage treatment ?

PART – II

- II. Answer **any four** of the following : (4×4=16)
- 9) Explain Ecotypes.
  - 10) What are ecological pyramids ? Explain pyramid of biomass.
  - 11) Explain remote sensing applications.
  - 12) Red data book.
  - 13) Acid rain and its effects.
  - 14) Conservation and management of energy resources.

P.T.O.



III. Answer **any six** of the following :

(6×8=48)

- 15) Explain tropical rain forest.
- 16) Explain causes and control measures of water pollution.
- 17) What is hydrosere ? Explain its stages.
- 18) Explain vegetation of Karnataka.
- 19) Explain activities of CPCB and WWF.
- 20) What are floating but rooted hydrophytes ? Explain morphological and anatomical adaptations.
- 21) What is ozone depletion ? Explain causes and control measures.
- 22) What is ecosystem ? Explain pond ecosystem.