

**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 Nemec-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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**B.Sc. V Semester Degree Examination, Nov./Dec. 2016**  
**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 xeroplastic 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.

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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.
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