

(BOT 10410)

M.Sc. DEGREE EXAMINATIONS,  
NOVEMBER/DECEMBER 2015.

First Semester

Botany

Paper IV — PLANT RESOURCE UTILIZATION AND  
CONSERVATION

(Regulation 2010)

Time : Three hours

Maximum : 80 marks

Answer ALL questions.

All questions carry equal marks.

UNIT I

1. (a) Define Biodiversity and its utilization concepts.

Or

- (b) Describe the role of remote sensing in plant resource identification and add a note on Biopyracy.

UNIT II

2. (a) Explain in brief the Botany, cultivation and uses of food crop of Triticum.

Or

- (b) Give an account on its distribution, description and uses of medicinal plant belonging to family solanaceae.

UNIT III

3. (a) Give an account on activities of NGPGR and BSI.

Or

- (b) Describe the hot spots of the world with emphasis on India and add a note on activities of UNEP.

UNIT IV

4. (a) What is the main strategies for in-situ conservation? Differentiate between sanctuaries and protected areas.

Or

- (b) Write an account on activities of DBT and a brief account on IUCN.

(BOT 10112)

M.Sc. DEGREE EXAMINATION,  
NOVEMBER/DECEMBER 2015.

First Semester

Botany

Paper I — BIOLOGY AND DIVERSITY OF VIRUSES,  
BACTERIA, ALGAE AND FUNGI

(Regulation 2012)

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

All questions carry equal marks.

(5 × 14 = 70)

UNIT I

1. Describe the general properties and transmission of viruses.

Or

2. Give a brief account of bacteriophages and how they differ from viruses.

UNIT II

3. Enumerate the salient features of recombination in bacteria.

Or

4. Describe the general characters of actinomycetes and how they differ from cyanobacteria.

UNIT III

5. Describe the thallus organization in algae.

Or

6. Describe the reproduction in Rhodophyta.

UNIT IV

7. Describe the nutrition and reproduction in fungi.

Or

8. Give an account of ecto and endomycorrhizal associations.

UNIT V

9. Explain the economic importance of algae.

Or

10. What role did fungi play in agriculture and industry?

**(BOT 10212)**

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Botany

Paper II — BRYOPHYTES, PTERIDOPHYTES,  
GYMNOSPERMS AND PLANT FOSSILS

(Regulation 2012)

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

All questions carry equal marks.

(5 × 14 = 70)

**UNIT I**

1. Describe the range of thallus organization and reproduction in hepaticopsida.

Or

2. Give an account of evolutionary trends in sporophytes of bryophytes.

**UNIT II**

3. Describe the origin and phylogeny of pteridophytes.

Or

4. Describe the heterospory and seed habit in pteridophytes.

**UNIT III**

5. Enumerate the salient features of wood in gymnosperms.

Or

6. Give an account of male gametophytes in gymnosperms.

**UNIT IV**

7. Give an account of geological time scale.

Or

8. Explain the process of fossilization.

**UNIT V**

9. Write an essay on Bennettitales.

Or

10. Give a comprehensive account of fossil algae and bryophytes.

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Botany

Paper III — TAXONOMY OF ANGIOSPERMS

(Regulation 2012)

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

All questions carry equal marks.

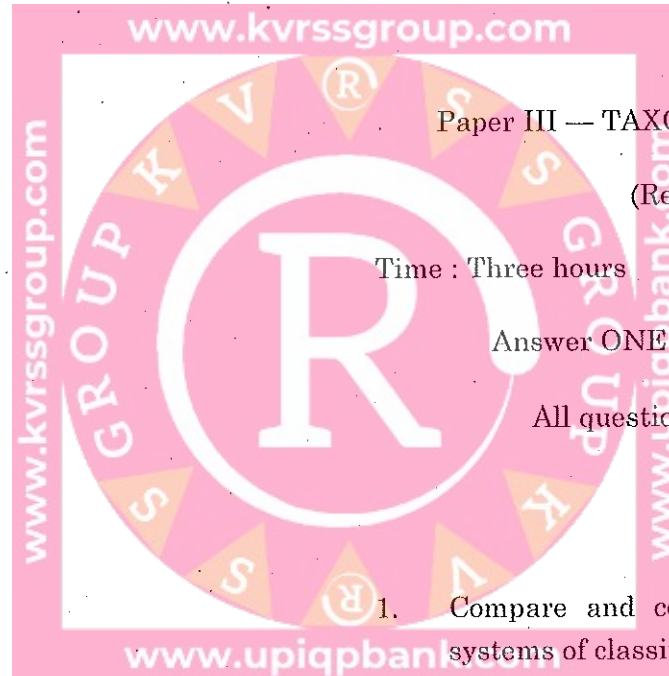
(5 × 14 = 70)

UNIT I

1. Compare and contrast any two post-Darwinian systems of classifications studied by you.

Or

2. Describe in detail the International Code of Botanical Nomenclature.



UNIT II

3. Enumerate the salient features of Takhtajan system of classification and add a note on its merits and demerits.

Or

4. Give an account of taxonomic categories.

UNIT III

5. Explain how cytology helped in resolving taxonomic disputes.

Or

6. What is a taxonomic key? How many types are there? How it is helped in floristic studies?

UNIT IV

7. What is a botanical garden? What are its uses? Name five botanical gardens each in India and world.

Or

8. Explain the role of computers in taxonomic studies.

UNIT V

9. Give an account of secondary metabolites studied by you and add a note on their contributions to taxonomy.

Or

10. Enumerate the salient features of molecular systematics.



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UNIT III

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Paper IV — PLANT RESOURCE UTILIZATION AND  
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(Regulation 2012)

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

All questions carry equal marks.

(5 × 14 = 70)

UNIT I

1. Explain the present status of biodiversity in India.
- Or
2. Write an essay on intellectual property rights.

UNIT II

3. Describe the botany and cultivation practices involved in rice.
- Or
4. Describe the botany and cultivation practices involved in chillies.

5. Describe the timber yielding plant *Tectona*, add a note on its distribution and uses.

Or

6. Describe the medicinal plant *Withania* and add a note on its therapeutic values.

UNIT IV

7. Write an essay on phytogeography.

Or

8. Give a general account on activities of BSI and NBPGR.

UNIT V

9. Explain the strategies involved in the conservation of mangroves.

Or

10. Explain the role of seed and field banks in *ex situ* conservation.