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**PGIS-N-1033 B-17**  
**M.Sc. Ist Semester Degree Examination**  
**BOTANY**  
**(Biodiversity and Conservation)**  
**Paper : SCT 1.4.1**  
**(New)**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates :**

- i) *Answer any Five questions.*
- ii) *Question No. 1 is compulsory.*

1. Answer in one or two sentences. **(10×2=20)**
  - a) Genetic diversity
  - b) Endangered plants
  - c) Hot spots
  - d) Red data book
  - e) Sacred groves
  - f) Ex-situ conservation
  - g) Biosphere reserves
  - h) Vavilov
  - i) Sustainable development
  - j) Welter G. Rosen
2. Write in detail the legal aspects of biodeversity conservation and add a note on future strategies with emphasis to Gulbarga region. **(15)**
3. Explain in detail the conservation of biodiversity. **(15)**
4. Discuss the different causes for loss of biodiversity. **(15)**

5. Enumerate the importance of biodiversity and add a note on sustainable development.(15)
6. Write short notes on any **Three** of the following. (3×5=15)
- a) Mega biodiversity centres of world.
  - b) Medicinal and herbal Gardens.
  - c) National organizations for conservation of natural resources.
  - d) Rio de Janeiro Earth summit 1992.



**PGIS-1032 B-17**  
**M.Sc. I Semester Degree Examination**  
**BOTANY**  
**(Plant Systematics and Phytogeography)**  
**Paper : BOT : HCT 1.3**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates :**

- i) *Answer any Five questions.*
- ii) *Question No. 1 is compulsory.*

1. Answer in **one** or **two** sentences. **(10×2=20)**
  - a) Lectotype
  - b) Significance of 1st May, 1753
  - c) BSI
  - d) Rejected names
  - e) Versatile anther
  - f) Disjunct distribution
  - g) Will's theory
  - h) Regma
  - i) Phylogeny classification
  - j) Vasculum
2. Write the Takhtajan's system of classification. And add a note on its merits and demerits. **(15)**
3. Write the salient features diagnostic characteristics and principles of the families solanaceae, & Rhizophoraceae. **(15)**
4. Write an account of Plate Tectonics & continental drift. **(15)**

5. Write the salient features of floristic regions with special emphasis to Indian region. (15)
6. Write any **Three** of the following. (3×5=15)
- a) Write the preparation of herbarium of special kinds of plants.
  - b) Salient features of Magnoliaceae.
  - c) Botanical Gardens of India.
  - d) Vacarism and Theory of tolerance.



**PGIS-O-1031 B-17**  
**M.Sc. Ist Semester Degree Examination**  
**BOTANY**  
**(Bryophytes Pteridophytes and Gymnosperms)**  
**Paper : HCT - 1.2**  
**(Old)**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates :**

*Answer any Five questions, question No. 1 is compulsory.*

1. Answer in one or two sentences. (10×2=20)
  - a) Elaters
  - b) Seta
  - c) Leptosporangiate
  - d) Actinostele
  - e) Columella
  - f) Indusium
  - g) Sori
  - h) Coralloid roots
  - i) Pycnoxylic wood
  - j) Bulbils
2. Write an account on classification of Bryophytes and add a note on reproductive structures in Bryophytes. (15)
3. Write an account on origin of pteridophytes and add a note on fossil history of pteridophytes. (15)
4. Write a detailed account of stelar evolution pteridophytes. (15)

5. Write a general account vegetative and reproductive organs of Pentoxylales. (15)
6. Write short notes on any **Three** of the following. (3×5=15)
- a) Sphagnum
  - b) Asteroxylon
  - c) Economic importance of pteridophytes
  - d) General account on Ephedra



**PGIS-N-1031 B-17**  
**M.Sc. I Semester Degree Examination**  
**BOTANY**  
**(Bryophytes, Pteridophytes and Gymnosperms)**  
**Paper : HCT 1.2**  
**(New)**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates :**

- i) Answer any *five* questions.
- ii) Question No. 1 is *compulsory*.

1. Answer in one or two sentences :

(10×2=20)

- a) Hyaline cells
- b) Seta
- c) Sporocarp
- d) Calamites
- e) Rhizomorph
- f) Winged pollengrain
- g) Resin ducts
- h) Columella
- i) Tassel
- j) Heterospory

2. Compare the structure and development of the sporophyte of Anthoceros and Marchantia. (15)3. Give a comparative account of selaginella and Equisetum (15)

4. Give a detailed account of economic importance of Pteridophytes. (15)
5. Give a comparative account of the reproductive structures of Ephedra and Pinus. (15)
6. Write short notes on any three of the following : (5×3=15)
- a) Spore dispersal mechanism in Bryophytes.
  - b) Recent development in pteridophytes
  - c) Anatomy of cycas leaf
  - d) Ecological importance of Bryophytes





**PGIS-O-1030 B-17**  
**M.Sc. I Semester Degree Examination**  
**BOTANY**  
**(Algae Fungi Bacteria and Viruses)**  
**Paper : BOT.HCT - 1.1**  
**(Old)**

Time : 3 Hours

Maximum Marks : 80

***Instructions to the Candidates :***

1. Answer any five questions.
  2. Question No.1 is compulsory.
- 
1. Answer in one or two sentences. (10 × 2 = 20)
    - a) Pyrenoids
    - b) Flagella
    - c) Cleistothecium
    - d) Conidia
    - e) Phyllactinia
    - f) Transduction
    - g) Plasmid
    - h) Citrus canker
    - i) Papaya ring spot virus
    - j) Viroids
  2. Describe thallus organization in chlorophyceae. (15)
  3. Write in detail on Heterothallism and parasexuality. (15)
  4. Give an account of general characteristics and classification of fungi. (15)

5. Explain the structure and reproduction of plant viruses. (15)
6. Write short notes on any **three** of the following. (3×5=15)
- a) Economic importance of algae
  - b) Role of fungi in agriculture
  - c) Ultra structure of bacterial cell
  - d) Double stand RNA viruses.



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**PGIS-N-1030 B-17**  
**M.Sc. I Semester Degree Examination**  
**BOTANY**  
**(Algae Fungi Bacteria and Viruses)**  
**Paper : BOT.HCT - 1.1**  
**(New)**

Time : 3 Hours

Maximum Marks : 80

***Instructions to the Candidates :***

1. Answer any five questions.
2. Question No.1 is compulsory.

1. Answer in one or two sentences.

(10 × 2 = 20)

- i) Pyramids
- ii) Agar-Agar
- iii) Proliferating sporangia
- iv) Plasmodium
- v) Heterothallism
- vi) Plasmids
- vii) citrus canker
- viii) ICTV
- ix) Mosaic virus
- x) Viroids

2. Give on account on of economic importance of Algae.

(15)

3. Describe in detail the role of fungi in agriculture and medicine.

(15)

4. Give on account of the genetic recombination of bacteria.

(15)

5. Explain the structure and chemical composition of double standard DNA viruses. (15)
6. Answer any **three** of the following: (3×5=15)
- a) Algae pigments
  - b) Parasexuality
  - c) Role of bacteria in medicine
  - d) Bacteria Phage

