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Your Roll No.



Sr. No. of Question Paper : 2906

Unique Paper Code : 32161201

Name of the Paper : Mycology and Phytopathology

Name of the Course : B.Sc. (Hons.) BOTANY

Semester : II

Duration : 3 Hours

Maximum Marks : 75

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **five** questions in all.
3. **All** questions carry equal marks.
4. Question No. 1 is compulsory.
5. All parts of a question must be answered together.
6. Draw well labelled diagrams wherever necessary.

1. (a) Name the following (**any five**) : (5×1=5)

(i) A coprophilous fungus

P.T.O.

- (ii) Name one example of imperfect fungi
- (iii) An edible mushroom
- (iv) Mycotoxin-producing fungus
- (v) Reindeer Moss
- (vi) Causal organism of White Rust of Crucifers
- (vii) A fungus causing Late blight of potato

(b) Match the following : (5×1=5)

<b>Column A</b>	<b>Column B</b>
(i) Zygomycota	<i>Albugo</i>
(ii) Oomycota	Slime molds
(iii) Myxomycota	<i>Pezziza</i>
(iv) Basidiomycota	<i>Rhizopus</i>
(v) Ascomycota	<i>Ustilago</i>

(c) Define any **five** of the following : (5×1=5)

- (i) Teleomorph
- (ii) Entomogenous fungi
- (iii) Ascogenous hyphae
- (iv) Fairy Rings

- (v) Capillitium
- (vi) Straminipila
- (vii) Hyperplasia

2. Write short notes on any **three** of the following :  
(3×5=15)
- (i) Chytridiomycetes
  - (ii) Development of basidiocarp in *Agaricus*
  - (iii) Bioluminescent fungi
  - (iv) Parasexuality
3. Differentiate between any **five** of the following :  
(3×5=15)
- (i) Soredia and Isidia
  - (ii) Cleistothecium and Perithecium
  - (iii) Loose Smut and Covered Smut
  - (iv) Biotrophs and Necrotrophs
  - (v) Conidia and Sporangia
  - (vi) Amphigynous and Paragynous antheridial development
4. Draw a well labelled diagram of any **three** of the following :  
(3×5=15)

- (i) E.M. of Dolipore Septum
  - (ii) Conidial apparatus of *Penicillium*
  - (iii) V.S. of *Peziza* apothecium
  - (iv) T.S. leaf of Barberry showing an aecium
5. (a) Describe various stages of *Puccinia graminis tritici* on wheat. (5)
- (b) Write the symptoms, causal organism, and control measures of angular leaf spot of Cotton disease. (5)
- (c) Define mycorrhizae. Explain the significance of Endomycorrhizae. (5)
6. (a) Briefly explain different types of life cycles in *Saccharomyces*. (5)
- (b) Explain the economic and ecological importance of Lichens. (5)
- (c) Discuss the role of fungi in the biological control of nematodes and insects. (5)
7. (a) Discuss various symptoms of plant diseases. (7)
- (b) Describe plant quarantine regulation and chemical control methods of plant diseases. (8)

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Your Roll No.....

Sr. No. of Question Paper : 4112

Unique Paper Code : 2162011202

Name of the Paper , : Plant Resources and Economic Botany

Name of the Course : B.Sc. (Hons) Botany

Semester : II

Duration : 2 Hours

Maximum Marks : 60

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **Four** questions in all including Question No. 1 which is compulsory.
3. All parts of a question must be answered together.
4. All questions carry equal marks.
5. Draw diagrams wherever required.

1. (a) Mention the botanical name and family of the following : (any 5) (1×5=5)

P.T.O.

- (i) Para rubber
- (ii) Tobacco
- (iii) Soybean
- (iv) Flax
- (v) Sesame
- (vi) Black pepper

(b) Fill in the blanks : (any 5) (1×5=5)

- (i) The one seeded indehiscent fruit of wheat is called as \_\_\_\_\_.
- (ii) Example of a Drug used as a myocardial stimulant \_\_\_\_\_.
- (iii) The disease, favism is caused by \_\_\_\_\_.
- (iv) Serpentine is obtained from \_\_\_\_\_ plant. (Botanical name).
- (v) Malarial fever can be cured by the use of the bark of \_\_\_\_\_ plant.
- (vi) Groundnut is an example of \_\_\_\_\_ fruit.

(c) Match the following : (**any five**) (1×5=5)

- |                   |               |
|-------------------|---------------|
| (i) Hashish       | (a) Coconut   |
| (ii) Copra        | (b) Tea       |
| (iii) Thein       | (c) Cannabis  |
| (iv) Pseudocereal | (d) Poppy     |
| (v) Codeine       | (e) Sugarcane |
| (vi) Nobilisation | (f) Quinoa    |

2. Write short notes on the following : (**any 3**)

(3×5=15)

(i) Ecological importance of legumes

~~(ii)~~ Plant genetic resources and conservation

(iii) Evolution of wheat

~~(iv)~~ TPS technology (Potato)

~~(v)~~ Health hazards of Tobacco

3. Draw well labeled diagram of the following : (**any 3**)

(3×5=15)

(i) L.S. of Wheat grain

(ii) T.S. of Black Pepper



(iii) T.S. of Citrus fruit

(iv) T.S of Jute Stem

4. (a) "UN has declared 2023 as the International year of Millets or IYM2023". Answer the following questions on the basis of this statement.

(i) What are Millets? Mention the botanical names of any two millets. State the differences between millets and pseudocereals. (5)

(ii) Millets are known as "Poor man's food". What are the reasons for this label? Mention their ecological importance. (5)

(b) Classify the fibres based on their origin. Briefly explain the processing of cotton and its economic uses. (5)

5. Differentiate between : (any 3) (3×5=15)

(i) Flue curing and air curing

(ii) Black Tea and Green Tea

(iii) White Jute and Tossa Jute

(iv) Fatty oils and essential oils

(v) *Oryza indica* and *Oryza japonica*



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Sr. No. of Question Paper : 4150

Unique Paper Code : 2162011203

Name of the Paper : Plant Systematics

Name of the Course : B.Sc. (Hons.) Botany-DSC

Semester : II

Duration : 2 Hours

Maximum Marks : 60

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **four** questions in all including question no. 1 which is compulsory.
3. Attempt **all** parts of the questions together.

1. (a) Fill in the blanks (**any five**) : (5×1=5)

(i) Starting date for binomial nomenclature is \_\_\_\_\_.

(ii) *Die naturlichen pflanzenfamilien* is authored by \_\_\_\_\_.

P.T.O.

- (iii) The system of classification proposed by Takhtajan is considered as \_\_\_\_\_.
- (iv) \_\_\_\_\_ is a store house of collected plant specimens which are dried, pressed and preserved on sheets.
- (v) The occurrence of ancestral or primitive characters in a taxon is known as \_\_\_\_\_.
- (vi) \_\_\_\_\_ is a angiosperm lacking vessels.
- (vii) \_\_\_\_\_ is the author of Flora of British India.

(b) Expand the following (**any five**): (5×1=5)

- (i) Benth.
- (ii) Hook. f.
- (iii) DC
- (iv) emend.
- (v) ex.
- (vi) UPGMA

(c) Answer the following (**any five**): (5×1=5)

- (i) Example of generic name derived from common name.
- (ii) Name the angiosperm family characterized by the presence of pollinia.

- (iii) Father of taxonomy.
- (iv) Type genus of the family Asteraceac.
- (v) The alternate name of the family Umbelliferae.
- (vi) A specimen which is duplicate of holotype.

2. Write short notes on any three of the following :  
(3×5=15)

- (i) APG IV system of classification
- (ii) Biological species concept
- (iii) Typification
- (iv) Importance of herbarium in the field of systematics
- (v) Rejection of scientific names

3. Differentiate between the following (**any five**) (3×5=15)

- (i) Phylogenetic and Phenetic systems of classification
- (ii) Parallelism and Convergence
- (iii) Monophyly and Polyphyly
- (iv) Primitive and Advanced characters
- (v) Flora and Monograph
- (vi) Euanthial and Pseudanthial theory

4. (a) Discuss the Principal of Priority and its limitations. (5)
- (b) Describe the importance of secondary metabolites in plant systematics by giving suitable examples. (5)
- (c) Write a note on Basal living angiosperms and why are they placed separately from Eudicots in APG system of classification? (5)
5. (a) Outline the system of classification proposed by Engler and Prant (Upto subclass). (5)
- (b) Write a note on characters and characters coding in cladistics methodology. (5)
- (c) Interpret the following : (any five) (5×1=5)
- (i) *Tricholepis tibetica* Hook.f. & Thomson in C.B. Clarke, Comp. Ind.
- (ii) *Lupinus* [Toumefort] L.
- (iii) *Salvia* x *palmeri* (A.Gray) Greene.
- (iv) *Microseris elegans* Greene ex A. Gray.
- (v) *Phyllanthus* L. emend. Muell.
- (vi) *S. apiana* x *S. clevelandii*