

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 741 E Your Roll No.....

Unique Paper Code : 216201

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

Name of the Paper : Biodiversity-II : Mycology and Phytopathology [BTHT-202]

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. Question No. 1 is compulsory.
4. All parts of a question must be answered together.
5. Draw well labelled diagrams wherever necessary.

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

(i) In Basidiomycota, the septal pore complex is known as \_\_\_\_\_ .

(ii) Heterothallism was discovered by \_\_\_\_\_ .

(iii) \_\_\_\_\_ produces beaked, pigmented, multicellular and muriform conidia.

(iv) The coral like outgrowths on the upper surface of lichen thallus is known as \_\_\_\_\_ .

(v) Paragynous antheridium is formed by \_\_\_\_\_ .

P.T.O.

(vi) \_\_\_\_\_ are formed on the upper surface of Barberry leaf.

(b) Name the following : **(Any five)** (5×1=5)

(i) Phialides

(ii) Red bread mould

(iii) A fungus causing candidiasis

(iv) A poisonous mushroom

(v) Reindeer moss

(vi) A predaceous fungus

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

(i) Stolon

(ii) Capillitium

(iii) Stroma

(iv) Necrosis

(v) Hartig net

(vi) Budding

2. Differentiate between any **three** of the following : (3×5=15)

(a) Anamorph and Telomorph

(b) Cleistothecium and Perithecium

(c) Early blight and Late blight of potato

(d) Foliose and Fruticose lichen

3. Write short notes on any **three** of the following : (3×5=15)
- (a) Sexual reproduction in *Rhizopus*
  - (b) Germination of sporangium in *Phytophthora*
  - (c) Parasexuality
  - (d) AM fungi
4. Draw well labelled diagrams of any **three** of the following : (3×5=15)
- (a) E. M. of budding yeast cell
  - (b) V. S. gill of *Agaricus*
  - (c) Conidial apparatus of *Penicillium*
  - (d) T. S. of heteromerous thallus of lichen
5. (a) Describe stages in the life cycle of *Puccinia graminis tritici* produced on the secondary host.
- (b) Discuss different modes of nutrition in fungi.
- (c) Describe different types of fruiting bodies in Myxomycetes. (3×5=15)
6. Write short notes on any **three** of the following : (3×5=15)
- (a) Biological control
  - (b) Economic and ecological significance of lichens
  - (c) Application of fungi in food industry
  - (d) Mushroom cultivation

7. (a) Name the pathogen, write the symptoms and control measures of white rust of crucifers.
- (b) Describe chemical methods to control plant diseases caused by fungi.
- (c) Describe the role of quarantine in plant disease control. (3×5=15)