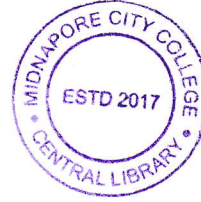


**PG CBCS**  
**M.Sc. Semester-I Examination, 2022**  
**BOTANY**  
**PAPER: BOT 103**  
**(MYCOLOGY & PLANT PATHOLOGY)**



Full Marks: 40

Time: 2 Hours

**Write the answer for each unit in separate sheet**

The figures in the right-hand margin indicate full marks.  
 Candidates are required to give their answers in their own words as far as practicable.

**UNIT-I**

**BOT 103.1 - MYCOLOGY**

Marks: 20

**GROUP-A**

1. Answer any **TWO** questions of the following: 2×2=4
- a) How fungi are closely related to animals?
  - b) What is sclerotium?
  - c) Distinguish between sterigmata and metulae.
  - d) How many types of sexual fruiting bodies are found in fungi? Write their names.

**GROUP-B**

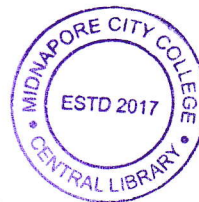
2. Answer any **TWO** questions of the following: 4×2=8
- a) Write short notes on clamp connection in fungi.
  - b) Write the role of fungi in organic acid and food production.
  - c) What are mycotoxins? Write their detrimental effect on human being.
  - d) Describe the origin and structure of basidiospores.

**GROUP-C**

3. Answer any **ONE** question of the following: 8×1=8
- a) Write down any phylogenetic classification of fungi with characters up to phylum
  - b) Briefly describe the mechanism of physiological and molecular basis of mating in Ascomycota.

P.T.O.

(2)



**UNIT-II**  
**BOT 103.2 - PLANT PATHOLOGY**

**Marks: 20**

**GROUP-A**

**1. Answer any TWO questions of the following:**

**2×2=4**

- a) What is Koch's postulate?
- b) Define disease tetrahedron?
- c) Distinguish between inoculum and inoculum potential.
- d) What is crown gall disease? Mention its causal organism?

**GROUP-B**

**2. Answer any TWO questions of the following:**

**4×2=8**

- a) Write the role of environment in disease development.
- b) How exclusion and eradication help to control plant diseases.
- c) Describe the role of growth regulators in host pathogen interaction.
- d) Write the mechanism of liberation and dispersal of inoculums.

**GROUP-C**

**3. Answer any ONE question of the following:**

**8×1=8**

- a) Distinguish between rust and smut. Schematically represent the life cycle of *Puccinia* involving two hosts. 3+5
- b) Describe different defensive mechanisms of host against the plant pathogen.

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