P. P. SAVANI UNIVERSITY

Fifth Semester of B.Sc. Examination
December-2021
SSMB3010–Mycology I

09.12.2021,Thursday **Time: 09:00 a.m. to 11:30 a.m.** **Maximum Marks: 60**

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

Section-I (Total Marks - 30)

Q.1 Short Questions **[10]**

1.1 Objectives **[05]**

1.1a _____ are classified based on hyphae and mycellium

- **A** Virus
- **B** Protozoa
- **C** Bacteria
- **D** Fungi

1.1b Fungi are categorized into two types

- **A** Bugs and Yeasts
- **B** Molds and Yeasts
- **C** Molds and Ticks
- **D** Algae and Yeasts

1.1c _____is known as Black Bread Mould.

- **A** Rhizopus
- **B** Cyanobacteria
- **C** Lichens
- **D** Mushrooms

1.1d Body of Fungi is known as

- **A** Thallus
- **B** Chitin
- **C** Stem
- **D** Leaves

1.1e The root like structure of hyphae that anchors the fungi are

- A Rhizoids
- B Stolons
- C Septa
- D Thallus

1.1f Coenocytic fungi are

A With Septa
B One Septa
C Two Septa
D Without Septa

1.1g In asexual spores, the production of spores is by
A Single Mycellium
B Double Mycellium
C Triple Mycellium
D Quaternary Mycellium

1.1h Fungi are important _____of organic matter
A Producers
B Decomposers
C Makers
D Parasites

1.1i The nuclear fusion phase where positive and negative nuclei fuse to form a diploid zygote nucleus is also known as
A Karyogamy
B Plasmogamy
C Meosis
D Cell Fusion

1.1j Ascospores that are produced within spherical cells are known as
A Smutes
B Hyphae
C Henle
D Asci

1.2 Answer the Following: **[05]**

1.2a Define : Mycology
1.2b What are Basidiospores?
1.2c What are Saprophytes?
1.2d What are Oospores?
1.2e Define : Fungi

Q.2 Short Notes (Attempt any two) **[06]**

A Fungal cell wall composition
B Types of Sexual Spores
C Benefits of Mycorrhiza

Q.3 Explain in detail (Attempt any two) **[14]**

A Asexual Reproduction in Fungi
B Clamp Connections in Basidiomycetes
C Types of Lichens

Section-II (Total Marks - 30)

Q.1 Short Questions [10]

1.1 Objectives [05]

1.1a Saccharomyces cerevisiae is the example of_____?

A Bacteria
B Fungi
C Yeast
D Molds

1.1b *Penicillium* is used in the production of_____.

A antibiotics
B cheese fermentation
C both (A) and (B)
D none of the above

1.1c The symbiotic association of algae and fungi is known as _____.

A Mycorrhiza
B Lichen
C Mycoplasma
D Both (A) and (A)

1.1d The endomycorrhizae are found in _____.

A herbaceous plants
B woody plants
C grasses
D all type of plants

1.1e *Aspergillus* has _____ hyphae.

A aseptate and uninucleate
B aseptate and multinucleate
C septate and uninucleate
D septate and multinucleate

1.1f The fungal partner in ectomycorrhiza belongs to the class _____.

A Basidiomycetes
B Ascomycetes
C Zygomycetes
D all of the above

1.1g Which of the organism produces aflatoxin?

A Fungi
B Virus
C Nematodes
D Bacteria

1.1h Which one of the following pairs is correctly matched?

A Rhizobium - Parasite in the roots of leguminous plants
B Mycorrhizae - Mineral uptake from soil
C Yeast - Production of biogas
D Myxomycetes - The disease ring worm

1.1i In mycorrhiza, the fungus may form colonies _____.

A extracellularly
B intracellularly
C both (A) and (B)
D depends on conditions

1.1j Which one of the following is known as blue mould?

A *Penicillium*
B *Rhizopus*
C *Mucor*
D *Aspergillus*

1.2 Answer the Following: (MCQ/Short Question/Fill in the Blanks) **[05]**

1.2a Number of ascospores formed in each ascus of *Penicillium* is_____.
1.2b Majorly, lichens are the pollution indicators of_____.
1.2c What is Peziza?
1.2d Define: symbiosis.
1.2e Define: Lichens

Q.2 Short Notes (Attempt any two) **[06]**

A Write a note on Lichens.
B Write a note on Neurospora.
C Write a note on Endomycorrhiza.

Q.3 Explain in detail (Attempt any two) **[14]**

A Discuss about life cycle of Aspergillus.
B Explain about reproduction of Mycorrhiza.
C Explain structure and life cycle of Saccharomyces.