Total number of printed pages–4

1 (Sem–4/FYUGP) BOT 41 MJ

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Acc. No.
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Nagaon : Assam

2026

BOTANY

(Major)

Paper : BOT4400104MJ

(Mycology and Phytopathology)

Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct option for each question : 1×5=5

(a) When a fungus is originally a saprophyte but can live as a parasite then it is called _____.

(i) Obligate parasite
(ii) Facultative saprophyte
(iii) Facultative parasite
(iv) Saprophyte

(b) The club–like structure in Basidiomycetes where spores are formed exogenously is called _____.

(i) Ascus
(ii) Basidium
(iii) Conidiophore
(iv) Sporangium

(c) Name of the fruiting body found in Penicillium is _____.

(i) Cleistothecium
(ii) Apothecium
(iii) Perithecium
(iv) Hysetrothecium

(d) Which fungus is mostly used in bread making ?

(i) *Penicillium notatum*
(ii) *Phytophthora infestans*
(iii) *Aspesgillus niger*
(iv) *Saccharomyces cerevisiae*

(e) The causal organism of "Red Rust Disease of tea" is _____.

(i) *Cephaleuros parasitica*
(ii) *Claviceps purpurea*
(iii) *Alternaria solani*
(iv) *Exobasium vexen*

2. Write short answers of ***any five*** of the following : 2×5=10

(a) Distinguish between zoospores and sporangiospores.

(b) Define mycelium and hypha.

(c) What is a dikaryotic life cycle ?

(d) What is prosorus ?

(e) What is a Cleistothecium ?

(f) What is clamp connection ?

(g) Distinguish between uredospore and telentospore.

(h) What is an anamorphic form of a fungus ?

(i) Write the important features of ectomycorhizae.

(j) Name *two* species of fungi which are edible mushrooms.

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3. Answer ***any four*** of the following : 5×4=20

(a) Write *any one* classification of fungi you have studied from your syllabus.

(b) Define heterothallism. Explain its discovery.

(c) Mention *at least five* asexual spores of fungi along with its development.

(d) How do biocontrol agents help in plant disease control? Explain *any one* of BGA as controlling agent.

(e) Write short note on Rhizomorph.

(f) Explain asexual reproduction in Synchytrium.

(g) Write about the systematic position of yeast as per the modern classification.

(h) Write a short note on Citrus Canker.

4. Answer ***any one*** of the following : 10×1=10

(a) Explain how fungi economically help in industry and agriculture.

(b) Describe haplobiontic and diplobiontic type of life cycles of *Saccharomyces*.

(c) Discuss the dikaryotic stages of the life cycle of *Puccinia graminis tritici*.

(d) Give an account of host-pathogen relationship.

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