

PG CBCS
M.Sc. Semester-I Examination, 2021
BOTANY
 PAPER: BOT 103
 (MYCOLOGY & PLANT PATHOLOGY)

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

BOT 103.1
MYCOLOGY

Answer any **TWO** questions from the following: **2X10 =20**

1. Fungi have been placed into a separate kingdom 'Mycota'; explain. Describe various kinds of sexual reproduction found in fungi. 4+6
2. Note down the role of fungi in antibiotic and organic acids production. Distinguish between homothallism and heterothallism. 4+6
3. Write down any one phylogenetic classification of fungi with characters upto phylum. Briefly describe the molecular mechanism of mating in Ascomycota. 6+4
4. What are holocarpic fungi? Explain the mode of action of aflatoxins. Write short notes on clamp connection in fungi. 2+4+4

BOT 103.2
PLANT PATHOLOGY

Answer any **TWO** questions from the following: **2X10 =20**

1. Discuss in brief the different mechanical defense mechanism against plant pathogens in plants. Mention role of different enzymes in plant defense. 6+4
2. Describe the infection phenomena of plant pathogens and discuss about the factors affecting the infections. 6+4
3. What are phytoalexins? How are phytoalexins synthesized in plants? What are the roles of phytoalexins in the plant defense against fungal pathogens? 2+3+5
4. What are symptoms of black stem rust of wheat? What are different types of spores produced by rust fungus? Mention the mechanism of infection of stem rust in host? 3+3+4
