

B.Sc. (Honours) Examination, 2018

Semester-II

Botany

Paper: BBC-21 (Core) [Old]

(Mycology and Plant Pathology)

Time: Three Hours

Full Marks: 40

Questions are of value as indicated in the margin.

1. Answer **any eight** of the following questions: 1×8=8
 - a) What is chitosan?
 - b) What is appressorium?
 - c) Name the pathogen causing bacterial blight of rice.
 - d) What is meant by coenocytic hyphae?
 - e) Name two edible fungi of the subdivision Basidiomycotina.
 - f) What is trama?
 - g) Name one motile and one nonmotile asexual spores of fungi.
 - h) In which fungi do you get stolon?
 - i) Write any two properties of systemic fungicides.
 - j) What is somatogamy?
 - k) Name one antifungal drug which inhibits ergosterol biosynthesis.
 - l) What are the composition of Bordeaux mixture ?
 2. Answer **any two** of the following:
 - (a) What are the unique properties of fungi? Briefly describe different types of asexual spores produced by fungi with suitable diagrams. What is gametangial copulation? 3+4+1=8
 - (b) Characterize the subdivision Ascomycotina. Describe ascus and ascospore development in *Ascobolus*. What is apothecium? 3+4+1=8
 - (c) Write short notes on: 2×4=8
 - (i) Budding and fission.
 - (ii) Fungal cell wall composition.
 - (iii) Medicinal importance of fungi.
 - (iv) Dolipore septum.
 3. Answer **any two** of the following:
 - (a) Characterize the pathogen causing black stem rust of wheat. Describe its stages of life cycle occurred in wheat plant. What are aeciospores? 2+4+2=8
 - (b) What are phytopathotoxins? Differentiate between host specific toxin (HST) and non host specific toxin (NHST). Name two HST with their producing organisms, chemical nature and mechanisms of action. 2+6=8
 - (c) Write short notes on: 2×4=8
 - (i) Structure of tobacco mosaic virus (TMV).
 - (ii) Control of late blight of potato.
 - (iii) Pre infective structural defense.
 - (iv) Phytoalexin.
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