



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 2nd Semester Examination, 2023

CC3-BOTANY

MYCOLOGY AND PLANT PATHOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer any **five** questions from the following: 1×5 = 5
- (a) Define Pathogenicity.
 - (b) What is dikaryon?
 - (c) Give the scientific name of one edible mushroom.
 - (d) What is Dolipore septum?
 - (e) What do you mean by holocarpic fungi?
 - (f) Name the major cell wall component of fungi.
 - (g) What is Inoculum?
 - (h) Name the causal organism of black stem rust disease of wheat.

GROUP-B

2. Answer any **three** questions from the following: 5×3 = 15
- (a) Discuss the method of sexual reproduction of *Rhizopus* sp. 5
 - (b) Briefly describe the role of fungi as Biofertilizers. 5
 - (c) Define disease cycle. Briefly describe the different stages of disease cycle. How it differs from the life cycle of a pathogen? 1+3+1
 - (d) In what respects, the apothecium, perithecium and cleistothecium differs from each other? 5
 - (e) Differentiate between: 2 $\frac{1}{2}$ × 2 = 5
 - (i) Diploidization and Dikaryotisation
 - (ii) Ectomycorrhiza and Endomycorrhiza.

GROUP-C

3. Answer any *two* questions from the following: 10×2 = 20
- (a) Describe the symptoms, causal organism, disease cycle and control measures of Early blight disease of potato. 2+2+3+3
- (b) Briefly describe the general characteristic features of lichens, its growth forms and range of thallus organization. 3+2+5
- (c) Give an illustrated account of the life cycle of *Aspergillus* sp. 10
- (d) Write short notes on: 2½ × 4 = 10
- (i) Parasexual cycle
 - (ii) Mycotoxin
 - (iii) Mechanism of Biological control
 - (iv) Heterokaryosis.

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