

Seat No. : _____

AF-107

April-2018

B.Sc., Sem.-VI

SE-311 : Biotechnology/Environmental Science

(Biology of Fungi)

Time : 3 Hours]

[Max. Marks : 70

1. Answer any **two** of the following questions : **14**
 - (1) Describe general characteristics of fungi in detail.
 - (2) Narrate hyphal modifications in the somatic structure of fungi.
 - (3) Explain: Features and molecular approaches applied for fungal classification.
 - (4) Discuss classification of fungi and explain characteristics of *Zygomycetes* and *Deuteromycetes* classes.

2. Answer any **two** of the following questions : **14**
 - (1) Describe morphological characters and taxonomic status of *Aspergillus niger*.
 - (2) Describe sexual and asexual reproduction in *Basidiomycetes*.
 - (3) Describe steps of sexual cycle and mating system in fungi.
 - (4) Explain morphology and taxonomic characters of *Sachharomyces*.

3. Answer any **two** of the following questions : **14**
 - (1) Describe fungi pathogenic to man and animals.
 - (2) Write a note on human diseases caused by fungi.
 - (3) Explain the diagnosis, control and treatment of fungal diseases.
 - (4) Define mycosis and explain various types of mycosis in humans.

4. Answer any **two** of the following questions : **14**
 - (1) Role of yeast in preparation of food.
 - (2) Describe the importance of secondary metabolites from fungi.
 - (3) Write note on preservation of fungal cultures.
 - (4) Write note on role of fungi in Biodeterioration.

5. Do as directed :

14

- (1) Name source and effect of Ergot alkaloid.
 - (2) Draw the basic structure of Penicillin.
 - (3) Enlist the stages of cheese production.
 - (4) Define Terms: Conidiospore and Oospores.
 - (5) Name two specific chemical constituents of fungal wall.
 - (6) Name organic acid and fungal species used to produce it.
 - (7) Define heterokaryosis and give its importance.
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