

Seat No. : _____

MQ-123

March-2019

B.Sc., Sem.-VI

SE-311 : Biotechnology / Environmental Science (Biology of Fungi)

Time : 2:30 Hours]

[Max. Marks : 70

1. (A) Narrate the fungal classification in detail with diagram. 14

OR

(1) Describe the general characteristics of fungi. 7

(2) Explain vegetative modifications in fungi. 7

(B) Answer the following in brief : (Any **Four**) 4

(1) What is coenocytic hyphae ?

(2) Define the term: Compatible nuclei.

(3) Name two types of means for sexual reproduction in fungi.

(4) Name two types of asexual spores produced by fungi.

(5) List major criteria used for fungal classification.

(6) What is fungi Imperfecti ?

2. (A) Describe the morphology, reproduction and economic importance of *Saccharomyces cerevisiae*. 14

OR

(1) Explain the mating system in fungi. How promotion and restrictions occurs in outcross ? 7

(2) Write note on Heterokaryosis and its outcomes. 7

(B) Answer the following in brief : (Any **Four**) 4

(1) The motile spores of fungi are known as _____.

(2) What are Hermaphrodite fungi ?

(3) What is heterothallic outcrossing ?

(4) Asexual fungal reproduction process includes _____, _____ and _____ steps.

(5) Name two types of flagella found among fungal spores.

(6) Define Parasexual cycle.

3. (A) Explain in detail about mycosis. 14
- OR**
- (1) Write note on symptoms, fungi involved and treatment of cutaneous mycoses. 7
- (2) Describe the causative agent, treatment and control of systemic mycoses. 7
- (B) Answer the following in brief : (Any **Three**) 3
- (1) Define Ergotism
- (2) What is Aflatoxin ?
- (3) Give an example of superficial mycosis.
- (4) Name a fungus useful as bioinsecticide.
- (5) Name a subcutaneous mycosis and fungi causing it.
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4. (A) Enlist primary and secondary metabolites produced by fungi and give its economic importance. 14
- OR**
- (1) Explain the role of fungi in bioremediation. 7
- (2) Describe methods for preservation of fungal cultures. 7
- (B) Answer the following in brief : (Any **Three**) 3
- (1) What is biodeterioration ?
- (2) How is fungal inoculum is prepared ?
- (3) Name a hydrolase enzyme produced by fungi.
- (4) Name a fungus used for preparation of food.
- (5) Primary metabolites are produced during logarithmic phase of growth.
(True/False)
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