

B.Sc. Sem.-6 Examination

CC - 311

Environmental Science

August 2021

Time : 2-00 Hours]

[Max. Marks : 50

1. (A) Describe features and various approaches used for fungal classification. 7
(B) Discuss chemistry and ultrastructure of fungal mycelia with diagram. 7
 2. (A) Explain the general characteristics of Fungi. 7
(B) Discuss distinguishing characteristics of major classes of fungi. 7
 3. (A) Describe taxonomic status, reproduction and importance of *Agaricus bisporus*. 7
(B) Define heterokaryosis and explain events forming a heterkaryon in fungi. 7
 4. (A) Explain mating systems among fungi. 7
(B) Write a detailed note on parasexual cycle. 7
 5. (A) What is medical mycology ? Explain in details any one mycosis type. 7
(B) Explain methods employed to diagnose fungal infections. 7
 6. (A) Write symptoms, causes and control of Cutaneous mycosis. 7
(B) Describe the causative agents, treatment and control of Systematic mycosis in details. 7
 7. (A) List secondary metabolites produce by fungi and explain production and importance of any one in detail. 7
(B) Explain potential of fungi as powerful tool for bioremediation. 7
 8. (A) Explain the role of fungi in bioremediation. 7
(B) Describe methods for preservation of fungal cultures. 7
 9. Answer in short: (Any eight) 8
- Q-1 Cell wall of fungi is made up of?
- A Cellulose
 - B Hemicellulose
 - C Chitin
 - D Lignin
- Q-2 Zygomycota are also known as?
- A Bread Moulds
 - B Fungi Imperfecti

- C Sac Fungi
D Club fungi
- Q-3 Thread like filaments which form the plant body of fungi are
A Rhizoids
B Hypha
C Sclerotia
D Pellet
- Q-4 When a moist bread is kept exposed in air, it becomes mouldy and black because
A Spores are present in the water
B Spores are present in the air
C Spores are present on bread
D All of the above
- Q-5 Agaricus is a member of
A Ascomycota
B Basidiomycota
C Zygomycota
D Deuteromycota
- Q-6 Zygospore of Rhizopus/ Mucor germinates to form
A Mycelium
B Promycelium
C Hypha
D Germtube
- Q-7 The common yeast Schizosaccharomyces follows which of the following asexual reproduction methods?
A Binary Fission
B Budding
C Fragmentation
D Spore formation
- Q-8 No sexual stage is found in which class of fungi?
A Ascomycota
B Basidiomycota
C Zygomycota

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D Deuteromycota

Q-9 Special hyphal tips which absorb nutrients from the host in parasitic fungi

A Rhizoids

B Hypha

C mycelium

D Haustoria

Q-10 Ecological importance in terms of bio indicators of pollution is

A Lichens

B Mycorrhiza

C Neurospora

D None

Q-11 Number of ascospores present in one ascus after completion of meiosis is?

A 2

B 4

C 6

D 8

Q-12 Correct sequence for the sexual cycle of fungi starting from the haploid organism can be?

I. Plasmogamy

II. Karyogamy

III. Meiosis

IV. Mitosis

A I-II-III

B I-II-IV

C IV-III-I

D III-I-II

Q-13 Aplanospores are_____

A Motile sporangiospores

B Non-motile sporangiospores

C Oidia

D Chlamydozoospores

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- Q-14 Which scientist divided fungi in three divisions?
- A Alexopoulos and Mims
 - B Smith
 - C G.C. Ainsworth
 - D All of the above
- Q-15 Heterokaryosis is a character noticed in____ -
- A Endomycorrhizal Fungi
 - B Ectomycorrhizal Fungi
 - C Plant roots
 - D None of them
- Q-16 The Endomycorrhizas are also known as____
- A Intracellular mycorrhiza
 - B Vesicular Arbuscular Mycorrhiza
 - C Mat forming mycorrhiza
 - D All of them
- Q-17 Fungus diseases that occur on the nails, skin, hair are referred to as
- A Cutaneous mycoses
 - B Subcutaneous mycoses
 - C Superficial mycoses
 - D Opportunistic mycoses
- Q-18 Black piedra is a fungus infection of the _____
- A Skin
 - B Nail
 - C Hair
 - D All of the above
- Q-19 The systemic mycoses are caused mainly by
- A Air borne organisms
 - B Soil borne organisms
 - C Water borne organisms
 - D Food borne organisms
- Q-20 Who discovered Parasexuality among the following?
- A Smith
 - B G.C. Ainsworth
 - C Rothmaller
 - D Pontecarvo and Roper