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M.Sc. (First Semester)
EXAMINATION, Dec. - Jan., 2021-22
BOTANY
Paper Third
Microbiology, Phychology and Mycology

Time : Three Hours]

[Maximum Marks : 80

[Minimum Pass marks : 16

Note : Attempt all sections as directed-

Section - A

(Objective/multiple choice Questions)

(1 mark each)

Note: Attempt all question.

Choose the correct answers:-

1. Which of the following shows complex symmetry?-(
(A) T. M. V.
(B) Herpes
(C) Pox virus
(D) Bacteriophage

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2. In which part respiration enzyme present in bacteria-
(A) E. R.
(B) Mitochondria
(C) Ribosomes
(D) Cell membrane
3. In cyanobacteria where the nitrogen is fixed-
(A) Akinetes
(B) Val note
(C) Harmagenes
(D) Heterocysts
4. Which of the following bacterium is found in extreme sa-
line condition?-(
(A) Myco bacteria
(B) Eubacteria
(C) Archebacteria
(D) lyrobacteria
5. Which of the following character differes archebacteria
from Eubacteria?-(
(A) Mode of Nutrition
(B) Reproduction
(C) Cell membrane
(D) None of the above.

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6. Which of the following disease caused by viruses?
- (A) Dysentery
 - (B) Pneumonia
 - (C) Small pox
 - (D) Malaria
7. Viral genome attached to bacterial genome is called as -
- (A) Prophage
 - (B) Lytic cycle
 - (C) Lysogeny
 - (D) None of the above.
8. An icosahedral capsid consists of -
- (A) Hexagonal capsomers
 - (B) Triangular capsomers
 - (C) Polygenal capsomers
 - (D) None of the above.
9. The pyrenoids are -
- (A) Protein bodies with starch envelope
 - (B) Starch bodies
 - (C) Lipid
 - (D) None of the above.

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10. The pigment tucoxanthin is found in:-
- (A) polysiphonia
 - (B) Zygnema
 - (C) Laminaria
 - (D) All of the above-
11. Erect Hatened, dichotomously branched thalli are -
- (A) Ectocarpus
 - (B) Spirogyra
 - (C) Dictyota
 - (D) Memalion.
12. Which of the following algae called "water net" is:-
- (A) Cladophora
 - (B) Chara
 - (C) Hydrodictyon
 - (D) Pediastrum
13. Reserve food material Horidean starch is found in-
- (A) Brown algae
 - (B) Red algae
 - (C) Xanthophyceae
 - (D) Chlorophyceae

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14. The life cycle of polysiphonia is -
- (A) Haplobiontic
 - (B) Haplo - diplobiontic
 - (C) Diplontic
 - (D) None of the above-
15. In which class flagella is not found -
- (A) Bacillariophyceop
 - (B) Chlorophyceol
 - (C) Charophyceop
 - (D) Rhodophyceop
16. Coprophilous fungi grow on-
- (A) Dung
 - (B) Wood
 - (C) Grasses
 - (D) Animal
17. Sexual reproduction absent in-
- (A) Ascomycetes
 - (B) Phycomycetes
 - (C) Basidiomycetes
 - (D) Deuterungcetes

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18. Aflatoxin is produced by-
- (A) Bacteria
 - (B) Fungi
 - (C) Nematode
 - (D) All of above.
19. Clamp connection are very common in-
- (A) Ascomycetes
 - (B) Basidiomycetes
 - (C) Deuteromycetes
 - (D) Phycemycetes
20. Mycerhiza is a
- (A) Fungus association with stem
 - (B) AFungi association with root
 - (C) Bacteria association with root
 - (D) None of the above.

Section - B

(Very Short Answer Type Questions)

(2 marks each)

Note : Attempt any eight questions.

1. Name the bacterium responsible for botulisum disease.

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2. What is the main component of cell wall of Bacteria.?
3. Define plasmid stage.
4. Write two examples of which show Anisogamy.
5. What is the role of Heterocysts.?
6. Define Auxospore.
7. Name the fruiting body found in fungi.
8. Define "fungi Imperfecti".
9. Define Archeobacteria.
10. Name any two edible fungus.

Section - C

(Short Answer Type Questions)

(3 marks each)

Note: Attempt all questions.

1. Define virulent and temperate phage in Bacteria.
2. Define symmetry of viruses.
3. Define fruiting body apothecium.
4. Describe Nutrition in fungi.
5. Define rust & smut disease.
6. What is photoautotrophs.
7. Describe Basidium & Basidiospores.

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8. Define "fungi Imperfecti".

Section - D

(Long Answer Type Questions)

(5 marks each)

Note : Attempt any four questions.-

1. Describe conjugation in Bacteria.
2. Describe Ultrastructure of cyanobacterial cell
3. Write note on sexual reproduction found in algae with suitable example.
4. Write salient features of Mycorrhiza
5. Discuss structure & role of Heterocysts.
6. Explain Multiplication of viruses.
7. Describe fruiting body of Phodophyceae.
8. Describe Isomorphic alternation of generation in phaeophyceae.