



JAI-003-001320

Seat No. _____

B. Sc. (Sem. III) (CBCS) Examination

November - 2019

MB - 301 : Microbiology

(Microbial Diversity) (Old Course)

Faculty Code : 003

Subject Code : 001320

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) Figures on the right indicate total marks of questions.
(3) Draw neat diagrams wherever necessary.

1 Answer the following : 20×1=20

- (1) What is evolution ?
- (2) Define: Phylum.
- (3) Who gave the concept of Numerical Taxonomy ?
- (4) What is Molecular Chronometer ?
- (5) The Extracellular extension processed by numbers of the stalked bacteria is called a _____.
- (6) What are Methanogens ?
- (7) What are Halophiles ?
- (8) Treponema Pallidum, causative agent of syphilis belongs to _____.
- (9) Define : Archae.
- (10) Shalmonella, Shigella, Yersinia and Serratia are all _____ bacteria.
- (11) Enlist the name of diseases that are caused by clostridium.
- (12) Pleomorphic, nonmotile, acetic and lactic acid producer bacteria belongs to _____ genus.
- (13) What are Protozoa ?
- (14) Agar-Agar, carrageenin and funori are all obtained from _____.
- (15) The study of fungi is called _____.
- (16) Define: Thallus.
- (17) What is Plaque ?
- (18) The study of virus is known as _____.
- (19) Give an example of Bacteriophage.
- (20) Define: Capsid

- 2 (a) Answer specifically : (any **three**) **3×2=6**
- (1) What is Alpha Taxonomy ?
 - (2) What is Zooglea ?
 - (3) What is Houstoria ?
 - (4) Write the importance of Taxonomy.
 - (5) Write about Rickettsia.
 - (6) Describe in brief the general features of mycoplasma.
- (b) Answer specifically (any **three**) **3×3=9**
- (1) Discuss Bdellovibrio.
 - (2) Write a note on Thermophiles.
 - (3) Discuss Whittaker's five kingdom classification.
 - (4) Economic importance of Algae.
 - (5) Explain reproduction in protozoa.
 - (6) What is/are molecular chronometers ?
- (c) Write short note on : (any **two**) **5×2=10**
- (1) Describe Chlamydia.
 - (2) Economic importance of fungi.
 - (3) Explain life cycle of virus in detail.
 - (4) Numerical taxonomy.
 - (5) Discuss Endospore forming bacteria.
- 3 (a) Answer specifically : (any **three**) **3×2=6**
- (1) Write the importance of taxonomy.
 - (2) What are the proteobacteria ?
 - (3) Write the characteristics of fungi.
 - (4) How many types of pigments are present in Algae.
 - (5) What is pinocytosis ?
 - (6) Explain the structure of TMV.
- (b) Answer specifically : (any **three**) **3×3=9**
- (1) Describe the characteristics of Actinomycetes.
 - (2) Write about Mycoplasma.
 - (3) What is prions ?
 - (4) Write a note on occurrence of Algae.
 - (5) Discuss lysogeny cycle of virus with example.
 - (6) Discuss ultra structure of Algal cell.
- (c) Write short notes on : (any **two**) **2×5=10**
- (1) Discuss sexual reproduction of fungi.
 - (2) Explain about taxonomic ranks.
 - (3) Describe about photosynthetic bacteria.
 - (4) Explain replication of animal virus.
 - (5) Write note on Extremophiles.