

SECOND SEMESTER B.Sc. DEGREE [SUPPLEMENTARY/IMPROVEMENT]
EXAMINATION, APRIL/MAY 2015

(UC—CCSS)

Core Course—Microbiology

MB 2B 02—MICROBIAL TAXONOMY

Time : Three Hours

Maximum : 30 Weightage

Part A*Answer all the following.*

Fill in the blanks :

- 1 _____ proposed the five kingdom classification.
- 2 **Anoxygenic phototrophs** do not evolve _____ during photosynthesis.
- 3 **Flexuous** spiral forms of bacteria are known as _____
- 4 _____ are the cell wall deficient bacteria.

Choose the correct answer :

5 A sexual spores arranged in chains formed by molds with **separate hyphae** are :

- | | |
|------------------------------|----------------------------|
| (a) Sporangiospores . | (b) Basidiospores . |
| (c) Conidiospores . | (d) None of these. |

6 Which of the following is a locomotory organ ?

- | | |
|-----------------------|-----------------------|
| (a) Cilia . | (b) Flagella . |
| (c) Both (a) and (b). | (d) None of these. |

7 Who proposed three domain classification system ?

- | | |
|-------------------------|--------------------------|
| (a) Karl Woese . | (b) Linnaeus . |
| (c) Haeckel . | (d) Alexopoulos . |

8 _____ is an example of a photosynthetic bacterium.

- | | |
|-------------------------------------|---------------------------------|
| (a) <i>Chlorobium</i> . | (b) <i>Clostridium</i> . |
| (c) <i>Corynebacterium</i> . | (d) All of these. |

Answer in a single word :

- 9 Name a bacterium that 'eats' another bacterium.
- 10 Association of algae and fungi.
- 11 Virus that infect bacteria.
- 12 Fungus associated with plant roots.

(12 x 4 = 3 weightage)

Turn over

Part B

Answer all the following.

Comment on :

- 13 Cyanobacteria.
- 14 Chemolithotrophs.
- 15 Phage typing.
- 16 Ciliates.
- 17 Bacteriochlorophyll.
- 18 Serotyping.
- 19 Heteroduplex.
- 20 Basidiomycetes.
- 21 Dimorphic fungi.

(9 x 1 = 9 weightage)

Part C

Answer any five from the following.

Write short notes on :

- 22 Retroviridae.
- 23 Bacteriophage.
- 24 Ascomycetes.
- 25 Five kingdom classification.
- 26 Numerical taxonomy.
- 27 PCR.
- 28 Bergey's manual.

(5 x 2 = 10 weightage)

Part D

Answer any two of the following

Write essay on :

- 29 Various criteria used in bacterial classification.
- 30 Describe fungal classification proposed by Alexopoulos.
- 31 Describe the molecular methods used in taxonomy.

(2 x 4 = 8 weightage)