

## SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2012

(CCSS)

Core Course—Microbiology

MB2 B02—MICROBIAL TAXONOMY

Time : Three Hours

Maximum Weightage : 30

I. Objective type questions. Answer all *twelve* questions :

1 Characteristic of coenocytic hyphae is :

- (a) Non septate. (b) Septate with uninucleate.  
(c) Septate with multi nucleate. (d) None of these.

2 An ascomycetes which is widely used in genetic study is :

- (a) *Pisum sativum* (b) *Neurospora crassa*.  
(c) *Agrobacterium*. (d) *Arabidopsis thaliana*.

3 A ciliated protozoa is :

- (a) *Euglena*. (b) *Paramecium*.  
(c) *Trypanosoma*. (d) *Amoeba*.

4 Five kingdom classification is proposed by :

- (a) R.H. Whittaker. (b) Woese et al.  
(c) Cava lies smith. (d) E. Haeckel.

5 Culture that consist of single kind of micro organism is called \_\_\_\_\_

6 *Xanthomonas* produces a characteristic yellow pigment is called \_\_\_\_\_

7 Lichens are association of \_\_\_\_\_ and \_\_\_\_\_

8 Plant like form of protozoa is coming under the class \_\_\_\_\_

9 Name an organism which exhibit magneto taxis.

10 An archaeobacteria which lacking a cell wall

11 Name an anaerobic gram-ye cocci.

12 Name a bacteria which posens bacteria chlorophyll.

(12 x  $\frac{1}{4}$  = 3 weightgae)

Turn over

II. Short answer type questions. Answer all *nine* questions.

- 13 What is dimorphism ?
- 14 What is a sporangium ?
- 15 Coenzymes present in **Methanogens**.
- 16 What is **syngamy** ?
- 17 **Locomotor** organelles of protozoa.
- 18 What is temperate **phage** ?
- 19 What is institute method of classifying bacteria.
- 20 What is a **spheroplast** ?
- 21 What is a 'type strain' ?

(9 x 1 = 9 weightage)

III. Short essay or paragraph questions answer any *five* :

- 22 Replication of viruses.
- 23 Properties of viruses.
- 24 Importance of protozoa.
- 25 Explain alternation of generation with example.
- 26 Discuss about reproduction of protozoa.
- 27 Explain DNA hybridization.
- 28 Characteristics features of **Rickettsiaceae**.

(5 x 2 = 10 weightage)

IV. Essay questions. Answer any two :

- 29 Summarize classification of protozoa with suitable example.
- 30 Discuss about molecular approaches used in microbial taxonomy.
- 31 Discuss about economic and health benefits of fungi.

(2 x 4 = 8 weightage)