

C 41809

(Pages : 2)

Name

Reg. No. ....

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, APRIL/MAY 2013

(CCSS)

Microbiology

MB2 B02—MICROBIAL TAXONOMY

Time : Three Hours

Maximum : 30 Weightage

Part A

I. Objective Type Questions. Answer *all* twelve questions :

1 Who proposed three domain classification ?

- |                 |                |
|-----------------|----------------|
| (a) Carl Woese. | (b) Linnaeus.  |
| (c) Haeckel.    | (d) Whittaker. |

2 Prototroph can grown in :

- |                     |                       |
|---------------------|-----------------------|
| (a) Minimal medium. | (b) Enriched medium.  |
| (c) Special medium. | (d) Selective medium. |

3 Nitrifying bacteria oxidize nitrite to nitrate :

- |                            |                             |
|----------------------------|-----------------------------|
| (a) <i>Nitrobacter</i> .   | (b) <i>Nitrosolobus</i> .   |
| (c) <i>Nitro somonas</i> . | (d) <i>Nitro sococeus</i> . |

4 The causative agent of Q fever :

- |                                |                                    |
|--------------------------------|------------------------------------|
| (a) <i>Rickettsia typhi</i> .  | (b) <i>Rickettsia rickettsii</i> . |
| (c) <i>Coxiella burnetii</i> . | (d) <i>Mycoplasma</i> .            |

5 What is biovar ?

6 What is a Strain ?

7 What is hyperparasitism ?

8 What is cyanophages ?

9 Algal an fungal association is known as \_\_\_\_\_

10 Tree like representation of result of taxonomic analysis is called \_\_\_\_\_

11 The colonization of fungi on plant roots are called

12 One of the unicellular and uninucleated algae is

(12 x ¼ = 3 weightage)

Turn over

## Part B

II. Short Answer Type Questions. Answer *all* nine questions :

- 13 What is serotyping ?
- 14 What is stromatolites ?
- 15 What is dendrogram ?
- 16 What are capsomeres ?
- 17 What is prophage ?
- 18 What is prions ?
- 19 What is heteroduplex ?
- 20 What is facultative anaerobe ?
- 21 What is Nutalism ?

• (9 x 1 = 9 weightage)

## Part C

III. Short Essay or Paragraph Questions. Answer any *five* questions :

- 22 Explain methods to calculate IG + C content.
- 23 Discuss about economic importance of algae.
- 24 Explain sexual reproduction in fungi.
- 25 Explain five kingdom classification.
- 26 Describe asexual reproduction of protozoa.
- 27 Describe lytic and lysogenic cycle of bacteriophages.
- 28 Give a brief account on RNA viruses.

(5 x 2 = 10 weightage)

## Part D

IV. Essay Questions. Answer any *two* questions :

- 29 Discuss about major characteristics used in bacterial taxonomy.
- 30 Describe Alexopoulos classification of fungi.
- 31 Discuss about different levels of classification employed in bacterial taxonomy.

(2 x 4 = 8 weightage)