C 15742 **(Pages : 2)** **Name.....**

Reg. No.....

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2011

(CCSS)

Microbiology

MB 2 B 02—MICROBIAL TAXONOMY

Time : Three Hours Maximum : 30 Weightage

Part A

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

1 Conjugation occur between :

(a) F^+ x F+ cells. (b) F+ x F^- cells.

(c) F' x F' cells. (d) F^- x F^- cells.

2 Auxotroph can grow in :

(a) Minimal media.

(b) Complex media.

(c) Enriched media.

(d) Minimal media + Specific substrate or nutrient.

3 What is approximate generation time of *E.coli* ?

(a) 20 minutes. (b) 10 minutes.

(c) 25 minutes. (d) •23 minutes.

4 An anaerobic Gram negative cocci is :

(a) *Veillonella.* (b) *Staphylococcus.*

(c) *Streptococcus.* (d) *Diplococcus.*

5 Define classification.

6 What is serotyping ?

7 What is veroids ?

8 What is generation time ?

9 The basic taxonomic group is known as _____

10 The protein of flagellar filament is known as _____

11 The mycloplasmas are distinguished by their _____

12 Mycorrhiza is an infection of _____ part of a plant._____

(12 x $^1/_4$ = 3 weightage)

Turn over

Part B

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

13 What is phage typing ?

14 Describe the phenomenon of dimorphism.

15 What is G + C % ?

16 What is binomial system ?

17 What is Jaccard coefficient ?

18 What is DNA hypochromicity ?

19 What is a Phenotype ?

20 What is a Serotype ?

21 What is bacteriocin typing ?

(9 x 1 = 9 weightage)

Part C

III. Short essay or paragraph questions. Answer any *five* questions from seven.

22 How viruses are classified based on their nucleic acid ?

23 Explain how 16s ribosome studies help for bacterial identification.

24 Discuss about a sexual and sexual reporduction methods in fungi.

25 What are the general properties of viruses ?

26 What are the morphological characteristics used for bacterial classification ?

27 Explain phenetic and phylogenetic system of classification.

28 Give a brief account on nucleic acid sequencing.

(5 x 2 = 10 weightage)

Part D

IV. Essay questions. Answer *two* questions :

29 Discuss about various molecular approaches used in bacterial identification.

30 Describe the intraspecies typing methods used for bacterial identification.

31 Explain viral replication and cultivation methods.

(2 x 4 = 8 weightage)