Total No. of Questions : 11 Total No. of Printed Pages : 4

SH - 447

M.Sc. I Semester Biotechnology Exam.-2015

GENERAL APPLIED MICROBIOLOGY

Paper : III

Time Allowed : Three Hours

Maximum Marks : 85

Note: All the questions are compulsory.

Section - A

(Objective Type Questions)

Q.1. Give the answers in one line - or fill in the blanks. 2×10=20

i) Write one major difference in prokaryote and eukaryote.

ii) Which type of Bacteria have the outer membrane surrounding the peptidoglycan layer?

iii) How many volumes does second edition of Bergey's manual of systematic bacteriology has?

iv) How many carbon sources are used to obtain Diauxic growth curve?

v) Name one each of Plant Virus and Animal Virus.

vi) Name an antibiotic produced from prokaryote.

vii) Tetracyclines are produced by _____.

viii) In numerical taxonomy taxa intended to be classified are called _____.

ix) Root nodules of Nitrogen fixing plants have _____ protein.

x) Brewer's and Baker's yeast are the members of genus _____.

Section - B

(Short answer type questions) 5×4=20

Q.2. Write a note on pure culture techniques.

Or

Comment upon the use of "Autoclave' and its working.

Q.3. Describe Ribosomal RNA sequencing in short.

Or

What do you understand by 'Ribotyping'?

Q.4. Comment upon 'Endospores'.

Or

Give a brief account of Adenovirus.

Q.5. What are antifungal antibiotics? Explain with suitable examples.

Or

Define broad spectrum antibiotics with example.

Q.6. Write a note on Pseudomonas putida.

Or

State the functions of symbiotic relationship.

Section - C

(Long answer type questions) 5×9=45

Q.7. Describe the various nutrient types of microorganisms with suitable examples.

Or

State four major theories about the spontaneous generation conflicts.

Q.8. Give the main characteristics of primary domains (In Bacterial Classification).

Or

How is numerical taxonomy useful for bacterial classification? Explain.

Q.9 Describe the different techniques for the maintenance of culture.

Or

Describe the characteristics and morphology of Bacterial viruses.

Q.10. Give a brief account of mode of action of antibiotics with example.

Or

Give an account of cephalosporin in detail.

Q.11 Describe the microbial flora of soil.

Or

Describe the process of root nodule formation during nitrogen fixation symbiosis.

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