

Exam.Code:0001
Sub. Code: 0060

1128
B.A./B.Sc. (General) First Semester
Microbiology
MIC-101: Fundamentals of Microbiology – I

Time allowed: 3 Hours

Max. Marks: 30

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) What is the growth rate bacteria?
- b) What is mechanism of UV radiations method of sterilization?
- c) What is dimorphic fungus?
- d) What is monotrichous flagella?
- e) Write the various features of Hfr plasmid.
- f) Give the examples of fungus which are used as bio pesticides. (6x1)

UNIT – I

- II. a) Describe the contribution of Louis Pasteur in the field of microbiology.
b) Describe the Koch's postulates. (6)
- III. a) Explain the various branches of applied microbiology.
b) Give the differences between prokaryotes and eukaryotes. (6)

UNIT – II

- IV. a) Describe the various morphological characteristics of bacteria.
b) Describe the cell wall of Gram negative bacteria with diagram. (6)
- V. a) Describe the process of formation of spores.
b) What are the functions of cell wall and flagella? (6)

UNIT – III

- VI. Explain the process of gene cloning in the bacteria. (6)

P.T.O.

(2)

- VII. a) What are plasmids? Explain the advantages of using plasmids in genetic engineering.
- b) How restriction enzymes are different from normal enzymes? (6)

UNIT - IV

- VIII. What are bio pesticides? Explain use of different microorganism as bio pesticides? (6)
- IX. a) Differentiate between symbiotic and non-symbiotic N_2 fixation.
- b) How mycorrhizae help the plant? (6)

x-x-x