

KERALA AGRICULTURAL UNIVERSITY
B.Tech (Food . Engg) Degree Programme 2015 Admission
IInd Semester Final Examination- June – July 2016

Course Code: Fdqu.1202
Title: General Microbiology (1+1)

Marks: 50.00
Time: 2 hours

I. Define the following **(10 x 1=10)**

- 1) Resolving power of microscope
- 2) Antibody
- 3) Tyndallization
- 4) Spontaneous generation theory
- 5) Vaccine
- 6) Differential medium
- 7) Mutation
- 8) Transduction
- 9) Genetic engineering
- 10) Heterokaryon

II. Write short notes on ANY FIVE **(5 x 2 = 10)**

- 1) Phase contrast microscope
- 2) Differential staining
- 3) Synchronous culture
- 4) Pour plate method
- 5) Contributions of Alexander Fleming
- 6) Three domain system of classification of organisms
- 7) Chemical mutagens

III. Answer any FIVE questions **(5 x 4 =20)**

- 1) What are the different methods for preservation of microbial cultures?
- 2) What is growth curve? Draw a typical growth curve of bacteria and label different phases.
- 3) Give an account of various methods of gene transfer in plants.
- 4) List out the major contributions of Louis Pasteur.
- 5) Briefly discuss on the industrial applications of microorganisms.
- 6) How do anaerobes produce energy?
- 7) What is meant by bacterial conjugation? With the help of diagram, explain various steps in conjugation.

IV. Write Essay on ANY ONE **(1 x 10 = 10)**

- 1) Differentiate between prokaryotes and eukaryotes.
- 2) With the help of appropriate diagrams, explain lytic and lysogenic cycles in bacteriophages
