KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food. Engg) Degree Programme 2012 & Previous Admission

IInd Semester Re-Examination - July 2016

Cat. No: Fdqu.1202   Marks: 80.00

Title: General Microbiology (1+1)   Time: 3 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 TEN   (10 x3 = 30)

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.

8) Parasexuality in microbes.

9) Structure of antibody.

10) Photosynthetic microorganisms.

11) Enrichment culture.

12) Contributions of Robert Koch

III. Answer any SIX questions
(6 x 5 =30)

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

8) Energy production in anaerobic bacteria.

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.

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