

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2012 Admission
IInd Semester Final Examination- July -2013

Cat. No: Fdqu.1202

Marks: 80

Title: General Microbiology (1+1)

Time: 3 hours

I. Match the following

(10x1=10)

- | | |
|------------------------------|-----------------------|
| 1. Alexander Fleming | a. Anaerobic bacteria |
| 2. B lymphocytes | b. Algae |
| 3. Streak plate technique | c. Antibody |
| 4. Passive immunization | d. Animalcules |
| 5. Leeuwenhoek | e. rDNA technology |
| 6. Energy currency of a cell | f. Penicillin |
| 7. Plaque | g. ATP |
| 8. Phototroph | h. Pure culture |
| 9. <i>Clostridium</i> | i. Bacteriophage |
| 10. Cloning vector | j. Vaccine |

II. Write short notes on any ten

(10x3=30)

1. Resolving power of a microscope
2. Different types of mutagens
3. Gram staining
4. Contributions of Beijerinck
5. Koch postulates
6. Preservation of microbial cultures
7. Scanning and transmission electron microscopy
8. Parasexuality in microbes
9. Heterokaryosis
10. Different stages in the growth curve of bacteria
11. Tyndallization
12. Applications of dark field microscopy

III. Write short essays on any six of the following

(6x5=30)

1. Differentiate between continuous culture and synchronous culture
2. What is genetic engineering? Explain different steps involved
3. Discuss in brief about the differences between prokaryotes and eukaryotes
4. Industrial applications of microorganisms
5. Classification of microorganisms based on the mode of nutrition
6. Vaccine production
7. Glycolysis
8. Phase contrast microscopy

IV. Write essay on any one

(1x10=10)

1. With the help of a neatly labeled diagram, describe various mechanisms of gene transfer in bacteria
2. Define viruses. Draw a diagram of bacteriophage and label the parts. Bring out the differences between lytic and lysogenic cycles