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Code No. : **8017**

FACULTY OF SCIENCE
B.Sc. II Year Examination, March/April 2012
MICROBIOLOGY
(Paper – II) (Microbial Physiology and Genetics)

Time: 3 Hours]

[Max. Marks: 100

Note : Answer *all* questions from Section A and B.

SECTION – A

(Short Answer Type)

(8×5=40 Marks)

1. Chemoautotrophs.
2. Batch culture.
3. Glycolysis
4. Alcohol fermentation.
5. Alleles
6. Transposons
7. t-RNA
8. Concept of operon.

SECTION – B

(Essay Answer Type)

(4×15=60 Marks)

9. a) Write about factors influencing microbial growth and methods used for measuring microbial growth.

OR

- b) Write about the properties, classification of Enzymes and factors affecting to the catalytic activity of Enzymes.



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10. a) Explain about oxidative and substrate level phosphorylation.

OR

b) Explain about Glyoxylate cycle and HMP pathway.

11. a) Explain in detail about DNA replication.

OR

b) What is transduction ? Differentiate between generalised and specialised transduction.

12. a) Write principles of genetic engineering and its applications in Enzyme production.

OR

b) Explain about gene cloning methods and gene expression in recombinant E.coli.