

Code No. 5040

**FACULTY OF SCIENCE**

**B.Sc. II – Year Examination, March / April 2015**

**Subject: Microbiology**

**Paper – II**

**Microbial Physiology and Genetics**

**Time: 3 Hours**

**Max.Marks: 100**

**Note: Answer All questions from Part – A & B.**

**PART – A (8x5 = 40 Marks)**  
**[Short Answer Type]**

- 1 Photoautotrophs
- 2 Competitive inhibition
- 3 Submerged fermentation
- 4 Anaplerotic reactions
- 5 Ames test
- 6 Plasmids
- 7 Genetic code
- 8 Cistron

**PART – B (4x15 = 60 Marks)**  
**[Essay Answer Type]**

- 9 a) Describe various methods of measurement of bacterial growth. What are the various factors affecting bacterial growth?  
**OR**  
b) Explain in detail the various proposed concepts of enzyme action.
- 10 a) Describe TCA cycle.  
**OR**  
b) Explain bacterial photosynthesis.
- 11 a) What is bacterial conjugation? How was it discovered?  
**OR**  
b) Define mutation. What are the various types of mutations?
- 12 a) Write an account on transcription in bacteria.  
**OR**  
b) Give an account of different steps involved in gene cloning.

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