

T.Y. B.Sc. Examination March-2017

Microbiology

Paper : Mi-302- Microbial Metabolism

Paper Code: 8956

Time: 2 Hours

Total Marks: 75

Instructions: (a) Figure to the right indicates total marks of respective question.
(b) Draw neat, clean and labelled diagram wherever necessary.

1.(a) Discuss the various biochemical reactions involved in CO₂ assimilation in bacteria. **09**

(b) Justify: Gluconeogenesis is not a complete reversal of glycolysis. **09**

OR

1.(a) Write on biogenesis of purine. **09**

(b) Write on biosynthesis of amino acids **09**

2.(a) Discuss about regulation of positive and negative control on enzyme synthesis. **09**

(b) Define allosteric enzyme. Write on allosteric regulation of enzyme. **09**

OR

2.(a) Discuss the different methods used for detection of drug resistant mutants **09**

(b) Write notes on nature of target site affected by antimicrobial agent. **09**

3.(a) Derive M-M equation by using any one assumption. **09**

(b) Write on enzyme inhibition. **09**

OR

3.(a) Write notes on Siderophores. **09**

(b) Write on enzyme activation. **09**

4. Write short notes on: **21**

(a) Assimilation of nitrogen

(b) Column chromatography

(c) Covalent modification

OR

4. Write short notes on: **21**

(a) Chemotaxis

(b) Fluid mosaic model

(c) Attenuation
