

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER • 2014****Subject Code: 133601****Date: 23-05-2014****Subject Name: Introduction to Medicinal Chemistry & Biochemistry****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss TCA cycle in detail. **07**
(b) Explain Structure activity relationship and mechanism of action of Sulfonamides. **07**
- Q.2** (a) What is drug metabolism? Discuss Phase-2 transformations. **07**
(b) i. Explain Electron Transport chain in detail. **05**
ii. What is coenzyme? **02**
- OR**
- (b) i. What is drug? Discuss classification of drugs. **04**
ii. Discuss the different types of therapy used in the treatment of cancer. **03**
- Q.3** (a) Define the term: Transamination. Discuss Urea cycle in detail. **07**
(b) What is cell? Explain different cell organelles and their function with diagram? **07**
- OR**
- Q.3** (a) What class of drugs does Penicillin belong to? Discuss structural variation of Penicillin. **07**
(b) What are hormones? Give the classification of hormones with their functions **07**
- Q.4** (a) What is Glycolysis? Explain Glycolysis in detail with ATP synthesis. **07**
(b) i. Explain enzyme inhibition in detail. **05**
ii. Define the terms: Gram negative bacteria and Gram positive bacteria. **02**
- Q.4** (a) Give the classification of Sulfonamides on the basis of pharmacological action. **07**
(b) i. Discuss urea cycle in detail. **05**
ii. Define the terms: in vivo and in vitro activity. **02**
- Q.5** (a) Give classification of anti-malarial agents with two examples in each class. **07**
(b) Write a note on various routes of drug administration. **07**
- OR**
- Q.5** (a) Explain pentose phosphate cycle. **07**
(b) i. Explain role of vitamins as co-enzymes with suitable example. **04**
ii. Discuss the various factors affecting the enzyme activity. **03**
