

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION – WINTER • 2014

Subject Code: 133601

Date: 18-12-2014

Subject Name: Introduction to Medicinal Chemistry and 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) Explain Structure activity relationship and mode of action of Sulfonamides. **07**
(b) What is Transamination? Discuss Urea cycle in detail. **07**
- Q.2** (a) i. Explain enzyme inhibition in detail. **05**
ii. Define the terms: Bacteriostatic and Bactericidal activity **02**
(b) What is cell? Explain different cell organelles and their function with diagram? **07**
- OR**
- (b) What are hormones? Give the classification of hormones with their functions. **07**
- Q.3** (a) Give classification of anti-viral agents with two examples in each class. **07**
(b) Explain pentose phosphate cycle. **07**
- OR**
- Q.3** (a) Write a note on various routes of drug administration. **07**
(b) i. Write a short note on role of vitamins as co-enzymes with suitable example. **04**
ii. Explain key-lock model for enzymatic activity. **03**
- Q.4** (a) What is drug metabolism? Discuss any one in detail. **07**
(b) i. Explain Electron Transport chain in detail. **05**
ii. What is coenzyme? **02**
- OR**
- Q.4** (a) i. What is drug? Discuss classification of drugs according to chemical structure. **04**
ii. Discuss the various factors affecting the enzyme activity. **03**
(b) Discuss TCA cycle in detail. **07**
- Q.5** (a) What is Glycolysis? Explain Glycolysis in detail with ATP synthesis. **07**
(b) i. Discuss structural variation of Cephalosporins. **05**
ii. Define the terms: Gram negative bacteria and Gram positive bacteria. **02**
- OR**
- Q.5** (a) i. Discuss urea cycle in detail. **05**
ii. Define the terms: in vivo and in vitro activity. **02**
(b) Give the classification of Sulfonamides on the basis of duration of action. **07**
