

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (New) EXAMINATION – WINTER 2018****Subject Code: 2133601****Date: 28/11/2018****Subject Name: Introduction to Medicinal Chemistry &
Biochemistry(Elective-I)****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

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

		MARKS
Q.1	(a) Define (1). Structure- Activity Relationship (SAR), (2). Medicinal Chemistry, (3). Drug	03
	(b) Describe protein biosynthesis	04
	(c) Write the mode of action of Non-Steroidal Anti Inflammatory drugs (NSAID). Write the synthesis, SAR & metabolism of any one Salicylate NSAID.	07
Q.2	(a) Write the classifications, MOA of anti HIV drugs with one example	03
	(b) What are GMPs? Why GMP is important? What are the responsibilities	04
	(c) Define the term: Transamination. Discuss Urea cycle in detail.	07
	OR	
	(c) What are hormones? Give the classification of hormones with their functions	07
Q.3	(a) Describe Drug PKa concept.	03
	(b) Write a note on Drug classification.	04
	(c) Write the classifications with examples of anti-amoebic drugs. Write the Synthesis of (i). Metronidazole, (ii). Diloxanide Furoate. Write the MOA of any one drug.	07
	OR	
Q.3	(a) What are (1). Diagnostic agents, (2). Antiseptics, (3). Disinfectants. Give one example for each category.	03
	(b) What is the medical condition called “Gout”? How the anti-gout agents work?. Give suitable example with structures.	04
	(c) Write the synthesis of (i). Ethambutol & (ii). Isoniazid. Write the MOA & metabolism of any one drug.	07
Q.4	(a) Write the MOA & synthesis of any one Sulphonamide drug	03
	(b) Describe the MOA & synthesis of any one alkylating agent anti-neoplastic drug.	04
	(c) Define drug metabolism. Write its importance. Describe the pathways with suitable example.	07
	OR	
Q.4	(a) What are the classifications of Azole class of antifungal agents? Give one example in each class & Write the MOA of Azole antifungal agents.	03
	(b) What are the limitation in Cancer chemotherapy. Write a note on anticancer drug derived from plants. Write the MOA of any one drug.	04

- (c) Explain in detail-Role of Vitamin as Coenzyme. **07**
- Q.5** (a) Discuss Photosynthesis in detail **03**
- (b) What are Anthelminitics? Give one example with structure of any one Benzimidazole anthelminitics. Write its MOA & metabolism. **04**
- (c) What is Glycolysis? Explain Glycolysis in detail with ATP synthesis **07**
- OR**
- Q.5** (a) Describe the viral life cycle. **03**
- (b) Write the SAR of 4-aminoquinoline antimalarial drugs. Give suitable examples. **04**
- (c) Draw a neat labeled structure of Eukaryotic cell. Describe the function of cell organelles. **07**
