

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2019

Subject Code: 2133601

Date: 04/06/2019

Subject Name: Introduction to Medicinal Chemistry & Biochemistry(Elective-I)

Time: 02:30 PM TO 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.

		MARKS
Q.1	(a) Draw the diagram of enzyme key and lock model. Explain Briefly	03
	(b) Explain Enzyme Inhibition in Detail	04
	(c) What is Glycolysis? Explain Glycolysis in detail with ATP Synthesis	07
Q.2	(a) Write the mode of action of Azole class of antifungal agent. Give one example in each class & Write the MOA of Azole antifungal agents	03
	(b) Write the SAR of Sulphonamide class of antibacterials.	04
	(c) Discuss classification of antimalarial drugs with examples.	07
	OR	
	(c) Define Hormones? Give the classification of hormones with their functions	07
Q.3	(a) Describe the viral life cycle.	03
	(b) What are GMPs? Why GMP is important? What are the responsibilities	04
	(c) Explain the Glycolysis pathway in detail.	07
	OR	
Q.3	(a) Define (1). Structure- Activity Relationship (SAR), (2). Medicinal Chemistry, (3). Drug	03
	(b) Write a note on Drug classification	04
	(c) Write the classifications with examples of anti-amoebic drugs. Write the MOA & Synthesis of Metronidazole.	07
Q.4	(a) Discuss Photosynthesis in detail	03
	(b) What is the medical condition called "Gout"? How the anti-gout agents work? Give suitable example with structures.	04
	(c) Write the MOA, synthesis & metabolism of Ethambutol	07
	OR	
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
Q.5	(a) Write the classifications, MOA of anti HIV drugs with one example	03
	(b) Write the SAR of 4-aminoquinoline antimalarial drugs.	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

OR

- Q.5** (a) Explain the following terms in viral reproductive cycle: (1). Transcription, **03**
(2). Translation, (3). Reverse transcription
(b) Explain different cell organelles and their function with diagram **04**
(c) Define the term: Transamination. Discuss Urea cycle in detail **07**

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