

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) EXAMINATION – WINTER 2021****Subject Code:3133601****Date:25-02-2022****Subject Name:Introduction to Medicinal Chemistry, Biochemistry & Physiology****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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Enlist various routes of administration.	03
	(b) Define the terms: Medicinal Chemistry , drug & Bactericidal effect	04
	(c) Discuss Phase –I & Phase-II reactions with suitable examples.	07
Q.2	(a) How diuretics will act on urinary system?	03
	(b) What is cell organelles? Draw the diagram of a cell and label its different parts.	04
	(c) Write MOA of the antifungal agent Amphotericin B and Gresiofulvin. Give synthesis of any one antifungal agent.	07
OR		
	(c) Write the SAR of Salicylates and synthesis of Paracetamol and Aspirin.	07
Q.3	(a) Write a note on blood and its composition.	03
	(b) Enlist importance of Good manufacturing practises.	04
	(c) Explain Glycolysis in detail.	07
OR		
Q.3	(a) Write a note on Cardiac cycle.	03
	(b) Write a note on Pharmacopoeia.	04
	(c) Describe the reactions in the synthesis of urea (with cycle).	07
Q.4	(a) Write a note on Nephron.	03
	(b) What is the medical condition called “Gout”? How the anti-gout agents work? Give suitable example with structures.	04
	(c) Write a note on Anthelmintic. Mention its classifications. Give one example from each class. Write the synthesis of any one anthelmintic drug.	07
OR		
Q.4	(a) Give synthesis and use of Metronidazole.	03
	(b) Write the MOA of Sulpha drug.	04
	(c) Give the classification of Sulfonamides on the basis of therapeutic use. Write the synthesis of Sulphathiazole.	07

- Q.5 (a)** Describe Protein bio-synthesis. **03**
- (b)** Write the synthesis & MOA of Isoniazid-an anti-tubercular drug. **04**
- (c)** Draw the diagram of upper respiratory system and label its different parts with function. **07**

OR

- Q.5 (a)** Explain DNA, RNA, and Chromosome. **03**
- (b)** Write the MOA of NSAIDs. **04**
- (c)** Draw the diagram of Urinary system. Explain different parts of it with function. **07**
