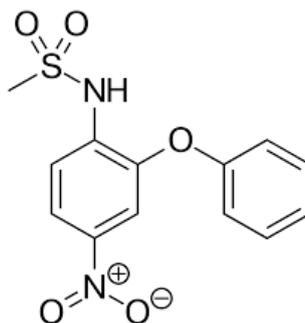


**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE –SEMESTER 3(NEW SYLLABUS)EXAMINATION- WINTER 2019**

**Subject Code:3133601****Date: 5/12/2019****Subject Name: INTRODUCTION TO HUMAN PHYSIOLOGY, MEDICINAL CHEMISTRY & BIOCHEMISTRY****Time:****Total Marks: 70****Instructions:**

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

		Marks
<b>Q.1</b>	(a) Enlist various routes of administration.	<b>03</b>
	(b) Explain role of pKa in absorption of drug with suitable example.	<b>04</b>
	(c) Discuss Phase –I & Phase-II reactions with suitable examples.	<b>07</b>
<b>Q.2</b>	(a) How diuretics will act on urinary system?	<b>03</b>
	(b) What is cell organelles? Draw the diagram of a cell and label its different parts.	<b>04</b>
	(c) Write the synthesis & MOA of the antifungal agent Econazole & Miconazole. Write a brief note on its process.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Define the terms: Medicinal Chemistry , drug & Structure Activity Relationship	<b>03</b>
	(b) Enlist importance of GMP.	<b>04</b>
	(c) Explain Tri Carboxylic Acid (TCA) cycle in detail.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Write a note on Cardiac cycle.	<b>03</b>
	(b) Write a note on blood and its composition.	<b>04</b>
	(c) Describe the reactions in the synthesis of urea (with cycle).	<b>07</b>
<b>Q.4</b>	(a) Define the terms: Diagnostic agents and Antiseptics	<b>03</b>
	(b) Write the synthesis of Nimesulide (structure given)	<b>04</b>



- (c) Write the SAR of 4-amino Quinolines and its MOA. **07**

**OR**

- 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 antileprotic drugs. Mention its classifications. Give one example from each class. Write the synthesis of any one antileprotic drug. **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 lower respiratory system and label its different parts with function. **07**
- OR**
- Q.5** (a) Explain DNA, RNA, and Chromosome. **03**  
(b) Write the mechanism of action of NSAIDs. **04**  
(c) Draw the diagram of different parts of urinary system with their function. **07**

\*\*\*\*\*