

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm- SEMESTER-I • EXAMINATION -- WINTER 2016

Subject Code: 910103**Date: 02/01/2017****Subject Name: Cellular and Molecular Pharmacology****Time: 10.30 AM – 01.30 PM****Total Marks: 80****Instructions:**

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

- | | | | |
|-------------|-----|--------------------------------------------------------------------------------------------|---------------------|
| Q.1 | (a) | Define and explain following | 06 |
| | | 1. Efficacy | 2. Potency |
| | | 3. Competitive antagonists | 4. Partial agonists |
| | (b) | Write a detail note on Muscarinic receptors. | 05 |
| | (c) | Describe various transport mechanisms across the cell membrane. | 05 |
| Q.2 | (a) | Write a note on molecular structure and signal transduction by G-Protein coupled receptors | 06 |
| | (b) | Write a note on neurotransmission as adrenergic neurons. | 05 |
| | (c) | Discuss biosynthesis of Nitric oxide and its role in Hypertension. | 05 |
| Q.3 | (a) | Write a note on molecular structure and mechanism of Voltage gated Sodium channel. | 06 |
| | (b) | Write a note on pharmacology of drugs acting on GABA _A -receptors. | 05 |
| | (c) | Discuss cellular and molecular pathway of apoptosis. | 05 |
| Q.4 | (a) | Write a note on transduction mechanism of Kinase Linked Receptor. | 06 |
| | (b) | Discuss role of interferon in immunological disorder. | 05 |
| | (c) | Describe theories of drug receptor interaction. | 05 |
| Q.5 | (a) | Write in detail about potassium channel openers. | 06 |
| | (b) | Write a note on Radio ligand binding studies. | 05 |
| | (c) | Describe pharmacology of H ₁ - receptor antagonists. | 05 |
| Q. 6 | (a) | Write note on clinical conditions influenced by role of 5-Hydroxytryptamine. | 06 |
| | (b) | Discuss role of TNF- α in inflammatory disorders. | 05 |
| | (c) | Write a note on gene therapy for cancer. | 05 |
| Q.7 | (a) | Differentiate necrosis and apoptosis. | 06 |
| | (b) | Describe special features of NMDA receptors. | 05 |
| | (c) | Write a note on pharmacology of purines. | 05 |
