

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**M. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2014**

**Subject Code: 910103**

**Date: 07-01-2015**

**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.**

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|-------------|-----|--|-----------|
| <b>Q.1</b>  | (a) | Write down classification of adrenergic receptors. Describe signal transduction mechanism of beta-1 receptor.                  | <b>06</b> |
|             | (b) | Write about parasympatholytic agents along with their therapeutic uses and side effects.                                       | <b>05</b> |
|             | (c) | Enlist different mechanism of transport across the membrane and write in detail about facilitated passive transport in detail. | <b>05</b> |
| <b>Q.2</b>  | (a) | Describe molecular structure and signaling mechanism of nicotinic receptor.  | <b>06</b> |
|             | (b) | Write a note on radio ligand binding study.  | <b>05</b> |
|             | (c) | Write a note on different types of drug antagonism.  | <b>05</b> |
| <b>Q.3</b>  | (a) | Write about Endothelin receptors in detail.  | <b>06</b> |
|             | (b) | Write a note on GABA receptors.  | <b>05</b> |
|             | (c) | Classify purine receptors with emphasis on receptor type, mechanism of action and agonist-antagonist for the same.             | <b>05</b> |
| <b>Q.4</b>  | (a) | Describe role of nitric oxide in cardio vascular disease.  | <b>06</b> |
|             | (b) | Write about potassium channel openers in detail.   | <b>05</b> |
|             | (c) | Describe few examples of disease related with receptor malfunctioning.   | <b>05</b> |
| <b>Q.5</b>  | (a) | Describe cellular and molecular pathway of apoptosis.  | <b>06</b> |
|             | (b) | Write about neurochemistry of aging.   | <b>05</b> |
|             | (c) | Write a note on gene therapy.  | <b>05</b> |
| <b>Q. 6</b> | (a) | Explain the role of leucotrine in the inflammatory disorder.   | <b>06</b> |
|             | (b) | Write a note on anti aging drugs.  | <b>05</b> |
|             | (c) | Write about mechanism of necrosis in brief.  | <b>05</b> |
| <b>Q.7</b>  | (a) | Describe signal transduction mechanism for NMDA receptor.  | <b>06</b> |
|             | (b) | Write about role of interferon in immunological disorder.  | <b>05</b> |
|             | (c) | Describe role of nitric oxide in case of erectile dysfunction.   | <b>05</b> |

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