

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.**

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

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