

**UKA TARSADIA UNIVERSITY**

Maliba Pharmacy College

M. Pharm. Pharmacology 1<sup>st</sup> Semester Internal Examination December 2013**040050102 Cellular and Molecular Pharmacology**

Time: 10:30 a.m. To 1:30 p.m.

Max. Marks: 70

Date: 06/12/2013

**Instructions:**

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

- Q-1** a) What is necrosis? Describe various types of necrosis with suitable examples. (5)
- OR**
- a) Describe various transport mechanism across the cell membrane.
- b) Classify and elaborate different types of receptors with suitable examples. (6)
- Q-2** a) Classify different types of drug antagonism. Explain competitive Antagonism with suitable examples. (6)
- OR**
- a) Explain Down-regulation of receptors and Up-regulation of receptors suitable example
- b) Differentiate between: (6)
1. Apoptosis and Necrosis
  2. Partial and Inverse agonists
- Q-3** Answer the following questions. (any two) (12)
- a) Give brief note on Muscarinic receptors- location, type, signal transduction and agonist-antagonists.
- b) Describe receptor malfunction related diseases.
- c) Describe the adaptive cellular and molecular responses in brain ageing.
- Q-4** a) Write a note on peptide and its antagonist as drugs. (5)
- OR**
- a) How GABA plays role in inhibitory post synaptic potential? How these actions can be modulated? (5)
- b) Describe the role of TNF- $\alpha$  in various immunological and inflammatory disorders. (6)
- Q-5** a) Describe the formation, metabolism and actions of Bradykinin (6)
- OR**
- a) Describe medical applications of gene therapy.
- b) Explain the clinical condition in which nitric oxide plays a significant role. (6)
- Q-6** Answer the following questions. (any two) (12)
- a) Differentiate Dopaminergic receptors
- b) Write a note on calcium channels.
- c) Classify GABA receptors, giving emphasis on their location, signal transduction and their agonists –antagonists