

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-I Regular / Remedial Examination January/February 2011

Subject code: 910103

Subject Name: Cellular and Molecular Pharmacology

Date: 31 /01 /2011

Time: 10.30 am – 01.30 pm

Instructions:

Total Marks: 80

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

- Q.1** (a) Classify Purine receptors with emphasis on receptor type, mechanism, actions and agonist-antagonists **06**
(b) Brief Note on-Role of various Adhesion Molecules in Inflammatory reaction. **05**
(c) Describe the serotonergic receptors involved in emesis. Give agonists and antagonists for the receptor. **05**
- Q.2** (a) Nitric Oxide acts like a double edged sword- Justify the statement with suitable explanation and examples. **06**
(b) Give Physiological role of SLC superfamily of transporters. **05**
(c) Explain the importance of radioligand binding studies. **05**
- Q.3** (a) Give mechanisms for Termination of GPCR mediated actions. **06**
(b) Write notes on- Potassium Channel and drugs altering potassium channel activity. **05**
(c) Give graphical examples to explain- potency, efficacy, antagonisms. **05**
- Q.4** (a) Describe various Apoptotic pathways with emphasis on Stress activated pathways. **06**
(b) Explain the role of PAF with mechanism. **05**
(c) How GABA plays role in inhibitory post synaptic potential? How these actions can be modulated? **05**
- Q.5** (a) Compare characteristics of various vectors for gene insertion in gene therapy **06**
(b) Give brief note on Muscarinic receptors- location, type, signal transduction and agonist-antagonists. **05**
(c) Why nuclear receptor show slower onset and longer duration of action? Explain using mechanism of any agent on it. **05**
- Q. 6** (a) Differentiate Dopaminergic receptors **06**
(b) Write note on-Endothelin. **05**
(c) Describe few examples of receptor malfunction related diseases. **05**
- Q.7** (a) Give brief introduction of drug receptor interaction theories. **06**
(b) Describe the signal transduction mechanism for Akt mediated actions. **05**
(c) What is necrosis? How it differs from apoptosis? **05**
