

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

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

## GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-VIII Summer-2012 Examination

Subject code: 280003

Subject Name: Pharmaceutical Chemistry- X(Medicinal Chemistry)

Time: 10:30am to 1:30pm

Date: 21-05-2012

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) Classify antihypertensive agent and write a note on  $\beta$ -blockers **06**
  - (b) Outline SAR activity of Cardiac Glycoside **05**
  - (c) Write a note on QSAR? Describe Physico-Chemical Parameters in details **05**
- Q.2**
- (a) Define Antiarrhythmic drugs. Give a comprehensive account of 'antiarrhythmic agents' used as CVS drugs with one example in each category. **06**
  - (b) Outline SAR activity of HMG CoA Reductase inhibitors. **05**
  - (c) Outline synthesis of following **05**
    - (a) Furosemide
    - (b) Captopril
- Q.3**
- (a) Define Atherosclerosis and classify Antihyperlipidemic agents and give normal values for LDL, HDL, Triglycerides and Total Cholesterol levels. **06**
  - (b) Write a note on Hansch Linear Free energy Relationship (LFER) model. **05**
  - (c) Outline SAR activity of Thiazide diuretics. **05**
- Q.4**
- (a) How do computer aided Physico-chemical methods helps for drug interaction sequel to drug design **06**
  - (b) Write a note on Angiotensin II receptor antagonist with example **05**
  - (c) Discuss mode of action of Thiazide and carbonic anhydrase inhibitors. **05**
- Q.5**
- (a) Sketch out the process of blood clotting schematically and discuss on the intervention part of anticoagulants. **06**
  - (b) Write a note on organic nitrates. **05**
  - (c) Give structures of following **05**
    - (a) Hydralazine
    - (b) Procainamide
    - (c) Acetazolamide
    - (d) Spiranolactone
- Q. 6**
- (a) Write a note on Antiplatelet agents and Thrombolytic agents. **06**
  - (b) Role of Combinatorial chemistry **05**
  - (c) Write a note on Plasma expanders **05**
- Q.7**
- (a) What do you mean by Molecular Modeling? What are two major aspects of molecular modeling? Explain **06**
  - (b) Write a note on Antiobese drugs. **05**
  - (c) Synthesis of (a) Warfarin (b) Dobutamine **05**