

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm – SEMESTER 8 • EXAMINATION – WINTER -2019

Subject Code:280003**Date: 19/11/2019****Subject Name: PHARMACEUTICAL CHEMISTRY-X (MEDICINAL CHEMISTRY)****Time: 3 Hours (02.30 PM to 05.30 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 a note on Hansch Linear Free Energy Relationship (LFER) Model in QSAR Studies **06**
(b) Discuss direct and indirect Molecular modeling **05**
(c) Write a note on high throughput screening (HTS) **05**
- Q.2** (a) Give SAR activity of Dihydropyridines and Give the synthesis of Nifedipine **06**
(b) Give synthesis of any two: a) Metformin b) Glipizide c) Carbimazole **05**
(c) Outline SAR activity of 5- Sulfamoyl benzoic acid derivatives **05**
- Q.3** (a) Define and classify diuretics with suitable examples. Discuss Potassium Sparing Diuretics **06**
(b) Write a note anti anginal drugs **05**
(c) Give structure and synthesis of: 1) Clofibrate b) Warfarin **05**
- Q.4** (a) Write a brief note on Physico Chemical Properties affecting drug action **06**
(b) Write mechanism of action, uses, side effect and SAR of ACE Inhibitors **05**
(c) Write a short note on sodium channel blockers as anti hypertensive **05**
- Q.5** (a) Define Atherosclerosis and classify Antihyperlipidemic agents. Give normal value of LDL, HDL, Triglycerides and Total cholesterol levels **06**
(b) Sketch out the process of blood clotting schematically and discuss on the intervention part of anticoagulants **05**
(c) Give structure of: a) spironolactone b) Procainamide c) Hydralazine d) Acetazolamide **05**
- Q. 6** (a) Define anti arrhythmic drugs. Give a comprehensive account of antiarrhythmic agents used as CVS Drugs with one example in each category **06**
(b) What are calcium channel blockers, classify them and give synthesis of of atenolol **05**
(c) Discuss chemistry and SAR of cardiac glycoside **05**
- Q.7** (a) Give brief account of beta blockers as potential antihypertensive agents. **06**
(b) Classify diuretics give mechanism and structure of one drug from each class. **05**
(c) Write a note on anti obesity drugs **05**
