

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Pharm – SEMESTER VIII– • EXAMINATION – SUMMER-2021**

**Subject Code: 2280003****Date: 04/08/2021****Subject Name: Pharmaceutical Chemistry – X (Medicinal Chemistry - III)****Time: 10:30AM TO 01:30PM****Total Marks: 80****Instructions:**

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

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|-------------|--|-----------|
| <b>Q.1</b>  | (a) Explain SAR activities of estrogens and adrenocorticoids.  | <b>06</b> |
|             | (b) Write notes on antianginal agents.   | <b>05</b> |
|             | (c) Give IUPAC name and synthesis of Glyceryltrinitrate and Flecainide.  | <b>05</b> |
| <b>Q.2</b>  | (a) Explain SAR activities of Progestins and Androgens.  | <b>06</b> |
|             | (b) Outline synthesis of Captopril and Hydralazine.  | <b>05</b> |
|             | (c) Give structure and synthesis of Clofibrate and Isosorbidedinitrate.  | <b>05</b> |
| <b>Q.3</b>  | (a) Classify antihyperlipidemics giving mechanism of action of each class and structure of important drugs from different classes. | <b>06</b> |
|             | (b) Explain SAR activities of 5-Sulfamoyl benzoic acid derivatives.  | <b>05</b> |
|             | (c) Write a note on thrombolytic Agents.   | <b>05</b> |
| <b>Q.4</b>  | (a) Explain mode of action of anti arrhythmic agents and discuss SAR of Thiazide diuretics.  | <b>06</b> |
|             | (b) Discuss in detail about nomenclature and stereochemistry of steroids.  | <b>05</b> |
|             | (c) Outline the synthesis of Furosemide and Ethacrinic acid  | <b>05</b> |
| <b>Q.5</b>  | (a) Write synthesis of following drugs (a)Glipizide (b)Metformin (c)Pioglitazone.  | <b>06</b> |
|             | (b) Write a note on plasma expanders.  | <b>05</b> |
|             | (c) Explain SAR activities of HMG CoA Reductase inhibitors   | <b>05</b> |
| <b>Q. 6</b> | (a) Classify Antihypertensive agents with suitable examples and explain synthesis Nifedipine and Amlodipine.                       | <b>06</b> |
|             | (b) Explain SAR activities of Cardiac glycosides.  | <b>05</b> |
|             | (c) Write a short note on Anticoagulants.  | <b>05</b> |
| <b>Q.7</b>  | (a) Define and classify diuretics with suitable examples. Discuss mode of action of carbonic anhydrase inhibitors.                 | <b>06</b> |
|             | (b) Write a note on Immunomodulators.  | <b>05</b> |
|             | (c) Outline the synthesis of Methimazole and Carbimazole.  | <b>05</b> |

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