

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. - SEMESTER- 5 • EXAMINATION – SUMMER -2020**

**Subject Code:BP501TT****Date: 26-10-2020****Subject Name: Medicinal Chemistry II****Time: 2:30 PM TO 5:30 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) Enlist various histamine receptors. Discuss neurochemistry of histamine. **06**  
(b) Give the synthesis of Promethazine hydrochloride and diphenhydramine hydrochloride. **05**  
(c) Write a note on Nitroglycerin as a Vasodilator. **05**
- Q.2** (a) Classify Diuretics with one structure in each class. Write mechanism of action, uses and side effect of Acetazolamide. **06**  
(b) Write informative note on Anti-hypertensive agents and give the synthesis of Methyldopate hydrochloride. **05**  
(c) Write a note on Gastric Proton pump inhibitors. **05**
- Q.3** (a) Classify Antiarrhythmic agents with one structure in each class. Write synthesis of Disopyramide phosphate. **06**  
(b) Write short notes on heparin as anticoagulant and give the synthesis of Warfarin. **05**  
(c) Give the synthesis the following: (Any two) **05**  
(i) Isosorbide dinitrite (ii) Chlorthiazide (iii) Furosemide.
- Q.4** (a) Explain in detail the nomenclature and stereochemistry of steroidal compounds. **06**  
(b) Write a note on Anti-hyperlipidemic agents. **05**  
(c) Write informative note on Sex hormones. **05**
- Q.5** (a) Give the synthesis and uses of the following: (Any two) **06**  
(i) Tobutamide (ii) Benzocaine (iii) Dibucaine.  
(b) Write a note on Antithyroid agents. **05**  
(c) Write a note on the natural products used as antineoplastic agents. **05**
- Q.6** (a) Define and classify Antidiabetic agents. Give the synthesis of Procaine. **06**  
(b) Classify anti neoplastic alkylating agents with relevant examples. **05**  
(c) Write a note on Oral contraceptives. **05**
- Q.7** (a) Discuss the SAR of Local anesthetics. **06**  
(b) Write a note on Drugs used in Congestive Heart Failure. **05**  
(c) Write a brief note on H<sub>2</sub>-antagonists. **05**

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