



PAPER ID-310642

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Subject Code: BP501T

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**BPHARM**  
**(SEM V) THEORY EXAMINATION 2023-24**  
**MEDICINAL CHEMISTRY II – THEORY**

**TIME: 3 HRS****M.MARKS: 75****Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****10 x 2 = 20**

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| a. | Define H <sub>2</sub> receptor antagonist with examples.                               |
| b. | Name any two natural products used as anticancer agents.                               |
| c. | Discuss the mechanism of action of osmotic diuretics.                                  |
| d. | Write the mechanism of action of digoxin in the treatment of congestive heart failure. |
| e. | What are oral contraceptives? Give examples.   |
| f. | Write the uses of sotalol and menadione.   |
| g. | Write the structure and uses of any two anticoagulants.                                |
| h. | Give the structure and uses of thyroid hormones.                                       |
| i. | Write the mechanism of action and uses of metformin.                                   |
| j. | Outline the synthesis of procaine.   |

**SECTION B****2. Attempt any two parts of the following:****2 x 10 = 20**

|    |  |
|----|--|
| a. | Define and classify Antihistaminic agents with examples. Outline synthesis, mechanism of action, and uses of Diphenhydramine and Promethazine. |
| b. | Classify diuretics with examples. Explain SAR of thiazides diuretics along with synthesis, mechanism of action and uses of chlorothiazide.     |
| c. | Define and classify local anaesthetic agent with examples. Outline the synthesis and mechanism of action of Benzocaine and Dibucaine.          |

**SECTION C****3. Attempt any five parts of the following:****5 x 7 = 35**

|    |   |
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| a. | Discuss proton pump inhibitor in detail and give structure, mechanism of action and uses of Omeprazole.   |
| b. | Classify Anti-hyperlipidaemic agents. Describe in detail about structures and mechanism of action of Clofibrate and Lovastatin.                             |
| c. | Outline the SAR of dihydropyridines (calcium channel blockers). Give the structure, synthesis, mechanism of action and uses of Methyl dopate Hydrochloride. |
| d. | Briefly explain erectile dysfunction and drugs used in it with their mechanism of action.   |
| e. | Describe the nomenclature and stereochemistry of steroids.  |
| f. | Classify oral hypoglycaemic agents and describe in detail about SAR and mechanism of action of sulfonylureas along with synthesis of tolbutamide.           |
| g. | Discuss SAR of Local anaesthetics. Give structure and mechanism of action of Cocaine and Meprylcaine.   |