

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: MPHARM  
BRANCH: PHARMACY**

**SEMESTER: I<sup>ST</sup>  
SESSION: MO-24**

**SUBJECT: MPL102 T ADVANCED PHARMACOLOGY I**

**TIME: 3.00 Hours**

**FULL MARK: 75**

**INSTRUCTIONS:**

1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
5. Answer any five questions.

1a. Classify Anticoagulants. Give mechanism of action, pharmacokinetics & adverse effects of heparin & oral anticoagulants. (7) [7]

1b. Classify diuretics. Give mechanism of action & uses of loop diuretics.(8) [8]

2a. Elaborate types of Angina & anti anginal drugs. Discuss pharmacological actions ,kinetics & adverse effects of nitrates. (8) [7]

2b. Discuss combined effects of drugs with examples. (7) [8]

3a. Write notes on(a) therapeutic index, (b) receptor regulation with examples. (8) [7]

3b. Which patient factors modify drug action. (7) [8]

4a. Classify nervous system ? Explain origin and distribution of sympathetic and parasympathetic nervous system with diagrammatic representation. (8) [7]

4b. What is Neurohumoral Transmission ? Explain different steps in Neurohumoral transmission.(7) [8]

5a. Explain synthesis ,release ,type of receptors of GABA neurotransmitters and their neuronal pathways in the brain with diagrammatic representation. (8) [7]

5b. Illustrate synthesis , release , types of receptors of DOPAMINE neurotransmitters and their neuronal pathways in the brain with diagrammatic representation. (7) [8]

6a. Explain synthesis ,release ,type of receptors of Serotonin (5-HT) neurotransmitters and their neuronal pathways in the brain with diagrammatic representation. (8) [7]

6b. Explain and Classify different types of depressive patients and their treatment with different class of drugs. (7) [8]

7a. Give sources, mechanism of action of cardiac glycosides. How to treat dioxin toxicity. (8) [7]

7b. Explain synthesis ,release ,type of receptors of Acetyl choline neurotransmitters and their neuronal pathways in the brain with diagrammatic representation. (7) [8]

:::10/12/2024:::M