

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

**CLASS: BPHARM
BRANCH: PHARMACY**

**SEMESTER: V
SESSION: MO 2025**

SUBJECT: BP503T PHARMACOLOGY-II (Theory)

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.
 4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.
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PART-I

Objective types questions (Instruction: Answer all questions)

Q1. (10 x 2 = 20 Marks)

- A. Name three hypothalamic releasing hormones
- B. Name two drugs used to treat Angina pectoris
- C. Name two drugs used for Congestive Heart failure
- D. Name different phases of cardiac electrophysiology.
- E. Name two hormones of adrenal gland.
- F. What is "DISEASE-MODIFYING ANTIRHEUMATIC AGENTS".
- G. Name two biological agents used in anti-arthritis management.
- H. Define blood pressure and cardiac output.
- I. Name a drug used as a heparin antagonist.
- J. Name two coagulants and anticoagulants.

PART-II

Short Answers

(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 Marks)

- Q2. Describe the mechanism of action of Aspirin with its pharmacokinetics.
- Q3. Write down the mechanism of Methotrexate in Anti-arthritis management, with side effects and contraindications.
- Q4. Classify different endocrine hormones with different releasing pathways.
- Q5. Explain synthesis, storage & release of thyroid hormones.
- Q6. Explain types of heart failure patients and classify drugs used to treat heart failure patients.
- Q7. Describe types of angina pectoris patients & Classify antianginal drugs.
- Q8. Classify anticoagulants with examples. Explain the adverse effects and contraindications of Heparin.
- Q9. What are diuretics? Classify diuretics with examples. Describe mechanism of action of acetazolamide and its adverse effects.

PTO

- Q10. A 65-year-old male was diagnosed to be suffering from congestive heart failure (CHF). He had pitting edema of feet, dyspnoea and cough on mild exertion, fatigue, engorged neck veins, soft enlargement of liver, pulmonary congestion and mild cardiac dilatation. The pulse was 100/min, respiration 20/min and BP 130/86 mm of Hg. He was prescribed—
Tab furosemide 40 mg once daily in the morning.
Tab captopril 25 mg twice daily, morning and evening.
After 2 hours of taking the medicines, he started passing increased quantity of urine and in the next few hours he gradually started feeling weakness, nausea, sweating and fainted while walking to the toilet. The pulse was recorded as 110/min and BP 80/40 mm Hg.
- (a) What could be the cause of sudden onset symptoms and the marked fall in BP? [2]
(b) Is the choice of drugs incorrect? [1]
(c) How could such adverse event be prevented? [1]
(d) What immediate management is required? [1]

PART-III
Long Answers
(Instruction: Answer two out of three questions)

(2 x 10 = 20 marks)

- Q11. Describe the mechanism of the uric acid synthase inhibitor with an example. Describe the classification of Anti-rheumatoid drugs.
- Q12. Explain types arrhythmia? Classify different antiarrhythmic drug with their mechanism of action.
- Q13. Illustrate renin-angiotensin system. Describe pharmacodynamic and pharmacokinetic profile including adverse event and contraindication of any one drug which inhibits Renin angiotensin system.

:21/11/2025 M: