



PRACTICE SET
End Semester Examination, Spring- 2026

Program: BPT
Semester: IV
Subject: Pharmacology
Subject Code: 23A401

Course Outcome:

On the completion of the Course, the students will be able to:

| Course Outcomes | Description |
|------------------------|---|
| CO1 | Understand the basic principles of general pharmacology |
| CO2 | Understand the basic pharmacology of commonly used drugs. |
| CO3 | Analyze the importance of drugs in the overall treatment including Physiotherapy. |

UNIT I
Section A (10 marks)

1. Define pharmacology and differentiate between pharmacokinetics and pharmacodynamics. (CO1) (Understand) (LOT)
2. Elaborate on different sources of drugs with examples (CO1) (Understand) (LOT)
3. Differentiate between (a) Agonist and Antagonist (b) Tolerance and Tachyphylaxis (CO1) (Understand) (LOT)
4. What are essential drugs? Explain guidelines to be considered for listing of essential drugs (CO1) (Remember) (LOT)
5. Explain the important landmarks and history of Pharmacology (CO1) (Remember) (LOT)

Section B (20 marks)

6. Classify various routes of drug administration and explain their advantages and disadvantages. (CO1) (Analyze) (HOT)
7. Evaluate the role of pharmacokinetics in drug therapy with special emphasis on membrane transport mechanisms. How do physicochemical properties of drugs influence their absorption, distribution, metabolism, and excretion? (CO1) (Evaluate) (HOT)
8. Analyze broader aspects of pharmacology and in terms of different scopes of Pharmacology. (CO1) (Analyze) (HOT)

UNIT II

Section A (10 marks)

9. Describe general anesthetic agents, including their mechanism of action, clinical uses, and adverse effects. (CO2) (Understand) (LOT)
10. Describe local anesthetic agents, including their mechanism of action, clinical uses, and adverse effects. (CO2) (Understand)(LOT)
11. Differentiate based on neurotransmitters involved in the sympathetic and parasympathetic nervous systems. (CO1) (Remember) (LOT)
12. Enlist the functions of the parasympathetic nervous system and its pharmacological actions on different organs. (CO1) (Remember) (LOT)
13. Explain the role of ANS in maintaining body homeostasis. (CO1) (Understand) (LOT)

Section B (20 marks)

14. Compare the physiological effects of sympathetic and parasympathetic stimulation on major organ systems. (CO3) (Analyze) (HOT)
15. Evaluate the clinical significance of the different stages of general anaesthesia and critically analyze the mechanisms of action of general anaesthetic agents in producing these stages (CO3) (Evaluate) (HOT)
16. Evaluate the pharmacological profile of sedatives and hypnotics by critically analyzing their mechanisms of action, therapeutic uses, and adverse effects in clinical practice. (CO3) (Analyze) (HOT)

UNIT III

Section A (10 marks)

17. Discuss the different psychotherapeutic drugs and their MOA. (CO2) (Understand) (LOT)
18. Write a short note on alcoholism and its effects on the body. (CO3) (Remember) (LOT)
19. Discuss the uses and side effects of anti-inflammatory drugs. (CO3) (Understand) (LOT)
20. Explain the interaction of anti-inflammatory drugs with physical therapy. (CO2) (Understand) (LOT)

Section B (20 marks)

21. Analyze the mechanisms of action of different classes of analgesic drugs and differentiate how these mechanisms contribute to their analgesic effects. (CO3) (Analyze) (HOT)

22. Explain the MOA, uses, side effects, and interactions with physical therapy of drugs used in movement disorders (CO3) (Analyze) (HOT)

UNIT IV

Section A (10 marks)

23. Classify antihypertensive drugs and explain their therapeutic uses and side effects. (CO2) (Understand) (LOT)
24. Discuss the classification, uses, and adverse effects of drugs used in cardiac failure. (CO2) (Understand) (LOT)
25. Describe the classification, uses, and adverse effects of antiarrhythmic drugs. (CO2) (Understand) (LOT)
26. Explain the interaction of cardiovascular drugs. (CO3) (Understand) (LOT)

Section B (20 marks)

27. Critically evaluate the role of the RAAS pathway in controlling blood pressure and fluid homeostasis, including its clinical implications. (CO2) (Evaluate) (HOT)
28. Analyze the Nitric Oxide (NO) signaling pathway and explain how its molecular mechanisms contribute to vasodilation. (CO1) (Analyze) (HOT)
29. Explain the electrophysiology of the heart with detailed explanation of cardiac action potential. (CO1) (Analyze) (HOT)

UNIT V

Section A (10 marks)

30. Explain the interaction of gastrointestinal drugs (peptic ulcer and diarrhoea) with physical therapy. (CO3) (Understand) (LOT)
31. Explain the MOA of proton pump inhibitors and cytoprotective agents in peptic ulcer. (CO2) (Understand) (LOT)
32. Explain physiotherapist's considerations for a patient with peptic ulcer. (CO3) (Apply) (LOT)

Section B (20 marks)

33. Discuss the therapeutic agents used in peptic ulcer, including their MOA, uses and adverse effects. (CO2) (Evaluate) (HOT)
34. Describe the drugs used in diarrhoea, along with their , including their MOA, uses and adverse effects. (CO2) (Evaluate) (HOT)

UNIT VI

Section A (10 marks)

35. Explain the functions of insulin hormone in regulation blood glucose. (CO2) (Understand) (LOT)

36. Explain the role of different hormones that regulate blood calcium level. (CO2) (Understand) (LOT)
37. Describe the uses, adverse effects, and functions of adrenal corticosteroids. (CO2) (Understand) (LOT)

Section B (20 marks)

38. Examine the major pharmacological challenges in elderly patients and differentiate their effects on planning and execution of physical therapy. (CO3) (Analyze) (HOT)
39. Explain synthesis and secretion of different thyroid hormone from follicular cells in detail. (CO3) (Analyze) (HOT)
40. Differentiate between Type I and Type II Diabetes Mellitus and analyze the mechanisms of action of various antidiabetic drugs in relation to their therapeutic use. (CO3) (Evaluate) (HOT)

Summary Sheet

CO Wise

| CO | Q. No | Marks |
|--------------|--|--------------|
| CO1 | 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 28, 29 | 180 |
| CO2 | 9, 10, 17, 20, 23, 24, 25, 27, 31, 33, 34, 35, 36, 37 | 170 |
| CO3 | 14, 15, 16, 18, 19, 21, 22, 26, 30, 32, 38, 39, 40 | 200 |
| Total | | 550 |

Unit Wise

| Unit | Q. No | Marks |
|--------------|-------------------------------|------------|
| Unit 1 | 1, 2, 3, 4, 5, 6, 7, 8 | 110 |
| Unit 2 | 9, 10, 11, 12, 13, 14, 15, 16 | 110 |
| Unit 3 | 17, 18, 19, 20, 21, 22 | 80 |
| Unit 4 | 23, 24, 25, 26, 27, 28, 29 | 90 |
| Unit 5 | 30, 31, 32, 33, 34 | 70 |
| Unit 6 | 35, 36, 37, 38, 39, 40 | 90 |
| Total | | 550 |

Blooms Taxonomy Level (BTL) Wise

| BTL | Q. No | Marks |
|--------------|--|------------|
| LOT | 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 17, 18, 19, 20, 23, 24, 25, 26, 30, 31, 32, 35, 36, 37 | 240 |
| HOT | 6, 7, 8, 14, 15, 16, 21, 22, 27, 28, 29, 33, 34, 38, 39, 40 | 310 |
| Total | | 550 |

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Disclaimer: -This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.