

(This paper consists of 2 pages)

Date: 24-11-2025

D. Pharmacy (Part-I)
3702

D. Pharmacy Part-I (New Scheme) (Main) Examination November 2025
Pharmaceutical chemistry
Paper - II
Time: Three Hours
Maximum Marks: 80

Instruction To The Candidate :

1. Do not write anything on the question paper except roll number, otherwise it shall be deemed an act of unfair means and action shall be taken as per rules.
2. Question paper contains three parts (I-III). Each part is compulsory. Read instructions carefully for each part before starting.
3. Attempt parts of each question altogether. Write question number of each part along with it.

PART - I

Attempt ANY SIX of the following long questions:

- Q.1 Explain the mechanisms of action of insulin and metformin in the treatment of diabetes?
- Q.2 Give a detailed note on Volumetric Analysis.
- Q.3 Discuss the use of anti-hypertensive agents in the treatment of hypertension. Mention its brand name and marketed formulations?
- Q.4 What are Cardiovascular drugs? Write a note on any one anti-anginal agent?
- Q.5 Write a note on Cholinergic agents. Explain Neostigmine bromide in detail?
- Q.6 Explain the mechanism of action of insulin and metformin in the treatment of diabetes?
- Q.7 Write a note on Sulfonamides. Explain any one drug in detail?

PART-II

Attempt ALL of the following questions in short answer:

Q.8—Answer any SIX

- a) Write a note on gastrointestinal agents?
- b) Define anticonvulsant agents, draw any one structure and write its stability condition?
- c) Define the Anti-tubercular agents. Write its classification?
- d) Write a note on errors? Enlist types of errors?

- e) Define Pharmaceutical Chemistry? What is its importance?
- f) Write a note on Hematinic?
- g) Explain the difference between Adrenergic Agonist and Adrenergic antagonist agents?

Q.9—Answer all questions

- a) Give the classification of NSAIDs and write the marketed formulation, mechanism of action of any one drug?
- b) Define Antipsychotics. Write the formulations and uses of any one drug?
- c) Give the classification of NSAIDs and write the marketed formulation, mechanism of action of any one drug?
- d) Define Sedatives and Hypnotics. Mention the detail of Diazepam?

PART-III

Attempt ALL of the following questions objective questions

Q.10 — Answer in one word OR sentence

- a) Draw the structure of Paracetamol?
- b) Draw the structure of Thiopental Sodium?
- c) Draw the structure of any one adrenergic antagonist?
- d) Define Antimalarial?
- e) Draw the structure of Cisplatin?
- f) Draw the structure of Dapsone?
- g) Define Anti-anginal agents?

Q.11 — Answer in one word OR sentence

- a) Define Anti-depressant agents. Draw the structure of any one diuretic agent?
- b) Name the medicinal gases used in pharmaceuticals?
- c) What are the brand names of Antibiotics?
- d) What is the brand name of Sulfacetamide?
- e) To which class Ketoconazole belongs to?
- f) Write the storage condition of Ibuprofen?
- g) Write the brand name of Atropine Sulphate?

Q.12 — Answer in one word OR sentence

- a) Write the marketed formulation of Acetylcholine?
- b) What are Antibiotics?
- c) What are Significant figures?
- d) Define Gravimetric Analysis?

- e) What are the sources and types of errors?
f) Define Limit Test. Name all of them.

