

D. PHARM PART-I (R/S) EXAMINATION JANUARY 2025 (ER2020)**B1 – PHARMACEUTICAL CHEMISTRY (ER20-12T)****Time: 3 Hours****Total marks: 80**

[NOTE: Indicate the question number correctly for each answer.
Answers to questions 1-20 should be provided in the first pages as a single unit.
Give labelled diagrams/equations wherever necessary. Use only blue/black ink.]

Answer all the following.**(1 x 20 = 20)**

1. Ferrous thioglycolate formed in the limit test for Iron shows stable purple colour in ---- medium.
2. pM indicators find use in ---- titrations.
3. Water is added to dilute HCl and is used to treat----.
4. Quetiapine tablets are used in the treatment of----.
5. Atenolol is a second-generation selective beta blocker whereas ---- is a first-generation non-selective beta blocker.
6. Dilantin is a popular brand name for----.
7. Cholinergic drugs mimic the actions of the neurotransmitter----.
8. The group of drugs that blocks the euphoric effects of opiates are called----.
9. Sodium fluoride acts as a ---- agent.
10. Atropine sulphate blocks ---- receptors.
11. Give one use of Sodium potassium tartrate.
12. Name an antibiotic with nitrobenzene and chlorine substitution in its structure.
13. Name the heterocyclic ring present in chlorpromazine.
14. Name a triazolo benzodiazepine compound with antianxiety property.
15. Give the optimum storage temperature for unopened vials of Insulin.
16. Name a drug which is administered sublingually.
17. Which non-organic drug is used in the treatment of cancer therapy?
18. What are gliptins used as?
19. Which drug has the IUPAC name 4,4'- diamino diphenyl sulphone?
20. Name the antimalarial drug extracted from the dried leaves of sweet wormwood plant.

Answer any 10 of the following.**(3 x 10 = 30)**

21. Give the structure and use of Gabapentin.
22. What are ACE inhibitors? Indicate their use. Give two examples.

23. Define antiseptics and disinfectants giving two examples each.
24. Explain any three sources of impurities in pharmaceuticals.
25. Write a note on haematinics.
26. Explain the principle of limit test for sulphates.
27. Classify diuretics with one example each.
28. What is Cotrimoxazole chemically? What is it used for?
29. Write the use and storage conditions of Ciprofloxacin.
30. Classify antidepressants with examples.
31. What are sympathomimetics? Explain any one with structure.

Answer any 6 of the following.

(5 x 6 = 30)

32. Write the storage conditions and uses of any two medicinal gases.
33. Give the chemical structure of Amoxicillin. Write a note on Tetracyclines.
34. Classify antimalarials. Give the structure and IUPAC name of Chloroquine.
35. Define antacids. Add a note on Sodium bicarbonate and Calcium carbonate.
36. Give the chemical structure, chemical name, and use of INH.
37. Define hypnotics and sedatives with examples. Write the structure of Diazepam.
38. Classify NSAIDs. Write a note on narcotic analgesics.
