

NIPER JEE 2025 Question Paper - Memory Based

Time Allowed :2 hours	Maximum Marks :150	Total Questions :150
------------------------------	---------------------------	-----------------------------

General Instructions for NIPER JEE 2025

Read the following instructions carefully and follow them strictly:

1. The question paper consists of multiple-choice questions (MCQs) based on various topics from Pharmaceutical Sciences, Chemistry, and Biology.
2. The question paper is divided into four sections:
 - Section A: Pharmaceutical Sciences
 - Section B: Chemistry
 - Section C: Biology
 - Section D: General Knowledge and Current Affairs
3. There are a total of 150 questions in the paper.
4. Each question carries 1 mark. There is no negative marking for wrong answers.
5. All questions are compulsory.
6. Each question has four options, labeled (A), (B), (C), and (D). Choose the correct option.
7. Answer all the questions on the OMR sheet provided. Mark only one option for each question.
8. Write your Roll Number, Name, and Signature on the OMR sheet in the space provided.
9. The time allotted for this paper is 2 hours.
10. No extra time will be granted for filling personal details on the OMR sheet.

1. Which of the following antipsychotic drugs works by blocking post-synaptic dopamine D2 receptors, particularly in the mesolimbic-mesocortical pathway?

- (a) Haloperidol
 - (b) Clozapine
 - (c) Olanzapine
 - (d) Risperidone
-

2. Neutropenia is an adverse effect of all of the following drugs EXCEPT:

- (a) Clozapine
 - (b) Carbamazepine
 - (c) Phenytoin
 - (d) Lithium
-

3. The mode of action of nerve gas is:

- (a) Inhibition of acetylcholinesterase
 - (b) Blockade of sodium channels
 - (c) Inhibition of gamma-aminobutyric acid (GABA)
 - (d) Activation of muscarinic receptors
-

4. Friedel-Crafts reaction is observed in:

- (a) Aromatic compounds
 - (b) Aliphatic compounds
 - (c) Alcohols
 - (d) Aldehydes
-

5. Which of the following peptides is cyclic in nature?

- (a) Oxytocin
 - (b) Insulin
 - (c) Glucagon
 - (d) Vasopressin
-

6. The time taken for 5 percent of a drug to decompose by first-order kinetics is:

- (a) Half-life
 - (b) Mean residence time
 - (c) Shelf-life
 - (d) None of the above
-

7. Which are the host cell membrane receptors that the outer coat protein gp-120 of HIV binds to?

- (a) CD4 and CCR5
 - (b) CD8 and CXCR4
 - (c) CD4 and CXCR4
 - (d) CD8 and CCR5
-

8. A partial theoretical support for the idea that more stable carbocations would be formed faster than less stable ones comes during regioselective addition of HCl to propene, provided by:

- (a) Markovnikov's Rule
 - (b) Le Chatelier's Principle
 - (c) Hess's Law
 - (d) None of the above
-

9. Which form of electrochemical measurement does NOT involve electrolysis?

- (a) Potentiometry
 - (b) Voltammetry
 - (c) Coulometry
 - (d) Amperometry
-

10. In LC-MS (Liquid Chromatography-Mass Spectrometry) instrument, the interface is applied between:

- (a) Liquid chromatography and UV detector
 - (b) Liquid chromatography and mass spectrometer
 - (c) UV detector and mass spectrometer
 - (d) None of the above
-