

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM – SEMESTER IV • EXAMINATION – SUMMER -2020**

**Subject Code: BP404TP****Date: 29-10-2020****Subject Name: PHARMACOLOGY- I****Time: 10:30 AM TO 1:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|------------|----|--|-----------|
| <b>Q.1</b> | a) | Enlist different types of receptors and discuss G protein coupled receptors in detail.   | <b>06</b> |
|            | b) | Classify Parasympathomimetic agents and write a note on organophosphate poisoning.   | <b>05</b> |
|            | c) | Discuss the factors modifying drug action in detail.   | <b>05</b> |
| <b>Q.2</b> | a) | Enlist the factors affecting drug absorption. Explain how lipid solubility and ionization of drug affects its absorption.                        | <b>06</b> |
|            | b) | Classify General Anaesthetics. Discuss the stages of general anaesthesia with suitable diagram.  | <b>05</b> |
|            | c) | Discuss types of Glaucoma, pathophysiology and its drug treatment.   | <b>05</b> |
| <b>Q.3</b> | a) | Differentiate between Phase I and Phase II biotransformation reaction.   | <b>06</b> |
|            | b) | Enlist various routes of drug administration and discuss advantages and disadvantages of Oral route.   | <b>05</b> |
|            | c) | Write a note on Neurohumoral transmission.   | <b>05</b> |
| <b>Q.4</b> | a) | Classify Local anaesthetics and write a detailed pharmacology of procaine.   | <b>06</b> |
|            | b) | Define the following terms:<br>i) Tolerance ii) Loading dose iii) Inverse agonist iv) Competitive antagonism v) Enzyme induction.                | <b>05</b> |
|            | c) | Write on role of GABA as a neurotransmitter in CNS.  | <b>05</b> |
| <b>Q.5</b> | a) | Classify drug interactions and discuss pharmacokinetic drug interactions with suitable examples.   | <b>06</b> |
|            | b) | Discuss Mechanism of action and pharmacological actions of Adrenaline.   | <b>05</b> |
|            | c) | Explain the pharmacology of $\beta$ - Blockers in detail.  | <b>05</b> |
| <b>Q.6</b> | a) | Classify Skeletal muscle relaxants. Explain mechanism of action and pharmacology of d- tubocurarine.   | <b>06</b> |
|            | b) | Discuss the rationale for the use of ethyl alcohol in methyl alcohol poisoning.  | <b>05</b> |
|            | c) | Classify antiepileptic drugs and write MOA and adverse effect of Phenytoin.  | <b>05</b> |
| <b>Q.7</b> | a) | Classify drugs used in Parkinsonism. Explain why Carbidopa is used in combination with Levodopa.   | <b>06</b> |
|            | b) | Classify antipsychotic agent and write a note on atypical antipsychotic agents.  | <b>05</b> |
|            | c) | Differentiate between REM and NREM sleep. Explain the mechanism of actions, pharmacological actions, adverse effects and use of benzodiazepines. | <b>05</b> |

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