

**B. PHARM**  
**(SEM-IV) THEORY EXAMINATION, 2019-20**  
**PHARMACOLOGY-I**

*Time: 3 Hours*

*Total Marks: 75*

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

- 1. Attempt all questions in brief. 10 x 2 = 20**
- a. Define Tachyphylaxis with example.
  - b. What do you mean by Plateau principle in Pharmacokinetics?
  - c. Write the significance of STAT in JAK-STAT signaling.
  - d. What is Phase 0 clinical trial?
  - e. What do you mean by Cotransmission?
  - f. Write the clinical uses of Ritodrine and Salbutamol.
  - g. Write the mechanism of action of Vigabatrin.
  - h. What is diffusion hypoxia?
  - i. Write the mechanism of action of Tolcapone and Rasagiline.
  - j. What do you mean by drug dependence?

**SECTION B**

- 2. Attempt any twoparts of the following: 2 x 10 = 20**
- a. What is Pharmacovigilance? Explain different phases of clinical trials in detail.
  - b. Discuss different pharmacological actions of acetylcholine in detail.
  - c. Classify peripherally-acting skeletal muscle relaxants. Write a note on pharmacology of Lidocaine.

**SECTION C**

- 3. Attempt any fiveparts of the following: 7 x 5 = 35**
- a. Explain various routes of drug administration in detail.
  - b. What is biotransformation? Describe the significance of plasma protein binding.
  - c. Explain signal transduction mechanisms in G-protein-coupled receptor signaling.
  - d. Discuss the mechanism of action, uses and side effects of Propranolol.
  - e. Classify Sedatives. Write down the differences between benzodiazepines and barbiturates.
  - f. Write a short note on Nootropics.
  - g. Write down the classification of antidepressants and anti-anxiety agents.