

**341454(41)**

**B. Pharmacy (Fourth Semester) Examination,  
April-May 2020**

**(PCI Scheme)**

**PHARMACOLOGY-I-THEORY (BP404T)**

**(Pharmacy Branch)**

***Time Allowed : Three hours***

***Maximum Marks : 75***

***Note :*** This question paper contains three parts. A, B and C. Part-A contains 20 MCQ's of 1 mark each. All questions are compulsory in part-A. Part-B contains 3 long answer questions from part-B attempt any two carries 10 marks each. Part-C contains 9 short answer questions each of 5 marks. Attempt any 7 out of 9 questions from part-C.

**Part-A**

**20×1=20**

1. Attempt all sub-questions. Each sub-question carries 1 mark :

[ 2 ]

- (i) The study dealing with the mechanism of action of drugs is called ..... :
- (a) Pharmacology  
(b) Toxicology  
(c) Pharmacodynamics  
(d) Pharmacokinetics
- (ii) Transportation of drug from site of administration to blood is called ..... :
- (a) Absorption  
(b) Distribution  
(c) Metabolism  
(d) Excretion
- (iii) Drug that binds to its receptor and produces effect is called ..... :
- (a) Agonist  
(b) Antagonist  
(c) Inverse agonist  
(d) None of the above
- (iv) Which route of drug administration is the fastest?
- (a) Oral

341454(41)

[ 3 ]

- (b) Intravenous  
(c) Intramuscular  
(d) Subcutaneous
- (v) Most of the drugs are excreted by :
- (a) GIT  
(b) Skin  
(c) Lungs  
(d) Kidneys
- (vi) Adenylyl cyclase (AC) is associated with :
- (a) Ion channel coupled receptor  
(b) G-protein coupled receptor  
(c) Enzyme coupled receptor  
(d) Nuclear receptor
- (vii) One of the following statement is FALSE for simple passive diffusion :
- (a) Movement of drug molecule from region of higher concentration to region of lower concentration  
(b) Movement of unionized molecule through phospholipid bilayer of cell membrane

341454(41)

PTO

[ 4 ]

- (c) Energy for the movement of molecule is provided by hydrolysis of ATPs
  - (d) Rate of diffusion increases as concentration gradient increases
- (viii) Which of the followings is NOT the Adverse Effect of a drug?
- (a) Therapeutic effect
  - (b) Side effect
  - (c) Toxic effect
  - (d) Allergy
- (ix) Comparison of the maximum effect produced by two drugs is called
- (a) Effectiveness
  - (b) Efficacy
  - (c) Potency
  - (d) None of the above
- (x) Which of the followings is NOT a part of clinical trials?
- (a) Establishment of dose range
  - (b) Identification of side effects

341454(41)

[ 5 ]

- (c) Toxicity studies
  - (d) Drug interaction studies
- (xi) Post-Marketing Surveillance of a drug in the clinical trials is a part of:
- (a) Phase I
  - (b) Phase II
  - (c) Phase III
  - (d) Phase IV
- (xii) Which of followings is a class of neurotransmitters:
- (a) Amines
  - (b) Neuropeptides
  - (c) Neurosteroids
  - (d) All of the above
- (xiii) Category of Propranolol is:
- (a) Sympathomimetic
  - (b) Sympatholytic
  - (c) Parasympathomimetic
  - (d) Parasympatholytic

341454(41)

PTO

[ 6 ]

- (xiv) Which one of the followings is local anaesthetics?
- (a) Atenolol
  - (b) Lignocaine
  - (c) Phenobarbitone
  - (d) Neostigmine
- (xv) Which one of the following effects is NOT produced by Acetylcholine?
- (a) Increased heart activity
  - (b) Increased salivary secretions
  - (c) Constriction of pupil
  - (d) Constriction of bronchial muscle
- (xvi) Valproate belongs to which category?
- (a) General anaesthetic
  - (b) Antiparkinsonian
  - (c) Antipsychotic
  - (d) Antiepileptic
- (xvii) Which drug is used for the management of alcoholism?
- (a) Rivastigmine
  - (b) Levodopa

341454(41)

[ 7 ]

- (c) Disulfiram
  - (d) Diazepam
- (xviii) Which one of the followings is a mixed agonist-antagonist of opioid receptors?
- (a) Morphine
  - (b) Pentazocin
  - (c) Codeine
  - (d) Naloxone
- (xix) Nootropic drugs are used to :
- (a) Enhance mental ability
  - (b) Reduce pain
  - (c) Treat hypertension
  - (d) None of the above
- (xx) Selective serotonin reuptake inhibitors are mainly used for treatment of :
- (a) Schizophrenia
  - (b) Depression
  - (c) Epilepsy
  - (d) Alzheimer's disease

341454(41)

PTO

[ 8 ]

Part-B

2×10=20

**Long Answer Type Questions (Answer any 2 out of 3)**

2. Define neurohumoral transmission. Describe various steps involved in neurohumoral transmission.
3. Classify antipsychotic drugs. Describe mechanism of action, uses and adverse effects of chlorpromazine.
4. Describe various pharmacological actions and adverse effects of adrenaline.

Part-C

7×5=35

**Short Answer Type Questions (Answer any 7 out of 9)**

5. Write a short note on pharmacodynamic drug interactions.
6. How hepatic enzyme induction and inhibition affects bioavailability of drugs?
7. Enlist various routes of drug administration. Write advantages and disadvantages of oral route.
8. Write different stages of inhalation general anaesthesia.

341454(41)

[ 9 ]

9. Write mechanism of action and adverse effects of lignocaine.
10. Classify opioids. Discuss their adverse effects.
11. Classify antiparkinsonian drugs. What are the benefits of combination therapy of levodopa with carbidopa?
12. Enlist the drug used in Alzheimer's disease. Write their mechanism of action.
13. Write a short note on phenytoin.

100]

341454(41)