

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: B.Pharm.
BRANCH: PHARMACY

SEMESTER: IV
SESSION: SP23

SUBJECT: BP404T PHARMACOLOGY-I

TIME: 3.00 Hours

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.

PART-I

Objective types questions (Instruction: Answer all questions)

Q1. (20 x 1 = 20 Marks)

- A. Which of the following is FALSE regarding enteral route of drug administration?
a) Safest b) Most common c) Costliest d) Convenient
- B. If two drugs with the same effect, taken together and produce an effect that is less in magnitude to the sum of their effects is called:
a) Antagonism b) Potentiation c) Additive effect d) Chiral effect
- C. The followings are the characteristics of 'augmented' type adverse effects, EXCEPT:
a) Based on the known pharmacological actions of drug b) Predictable c) Irreversible
d) Common type
- D. A rectal suppository is used to treat pain at the rectum. This would represent what type of drug delivery?
a) Parenteral and local b) Parenteral and systemic c) Enteral and local d) Enteral and systemic
- E. Which of the following reactions is NOT a Phase I metabolism reaction?
a) Hydrolysis b) Oxidation c) Reduction d) Acetylation
- F. Which of the following anti-Alzheimer's agent is a plant alkaloid?
a) Tacrine b) Galantamine c) Memantine d) Piracetam
- G. Which of the following neurotransmitter depleted in the brain in Parkinson's disease?
a) Dopamine b) Acetylcholine c) Norepinephrine d) Epinephrine
- H. Which of the following statements is FALSE regarding idiosyncratic reaction?
a) It is genetically determined. b) It is an uncharacteristic reaction of the drug.
b) It is sometimes does not depend on dose d) It is a common type of reaction
- I. Which of the following is NOT an endogenous opioid agonist?
a) Adenosine b) Enkephalin c) Endorphin d) Dynorphin
- J. Which of the following is an irreversible indirectly acting cholinergic agent?
a) Edrophonium b) Neostigmine c) Pyridostigmine d) Isoflurophate
- K. Which of the mitotic agent is preferred in the treatment of glaucoma?
a) Pilocarpine b) Acetylcholine c) Ecothiophate d) Carbachol
- L. Endorphin shows higher affinity to _____.
a) μ receptors b) δ receptors c) α receptors d) κ receptors
- M. Which of the following neurotransmitter possesses inhibitory and excitatory effects?
a) Acetylcholine b) Glutamate c) Aspartate d) Gamma amino butyric acid
- N. _____ is a directly acting skeletal muscle relaxant.
a) Succinylcholine b) Mivacurium c) Dantrolene d) d-Tubocurarine
- O. Drug X was administered at 10 mg intravenous bolus dose and the initial plasma drug concentration was found to be 0.1 $\mu\text{g/mL}$. Calculate the volume of distribution of drug X.
a) 1 L b) 10 L c) 100 L d) 1000 L
- P. Glucuronide conjugation can occur to _____.
a) Hydroxyl compounds b) Carboxyl compounds c) Sulfhydryl compounds d) All of the above
- Q. Na^+ channel exists in how many forms?
a) 2 b) 3 c) 4 d) 5
- R. Ethanol is known to causes respiratory _____.
a) Stimulation b) Depression c) Hypoxia d) None of the above
- S. Ethanol action on peptic ulcer:
a) Cures b) Aggravated c) Stabilizes d) All of the above
- T. Epilepsy means:
a) vomiting. b) giddiness. c) convulsions. d) stomach pain.

PTO

PART-II
Short Answers
(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 Marks)

- | | | |
|------|--|--------|
| Q2. | Enumerate advantages of inhalational route of drug administration. | CO1 |
| Q3. | Discuss the consequences of drug interactions at the site of absorption. | CO3 |
| Q4. | Differentiate between Phase-I and Phase-II metabolic reactions. | CO2 |
| Q5. | Classify the drugs used in the treatment of Alzheimer's disease with examples. Discuss any one of the categories with their mechanism of action. | CO1 |
| Q6. | Write notes on myasthenia gravis and its treatment. | CO1, 2 |
| Q7. | Describe the physiological role (nicotinic and muscarinic) of anticholinergic drugs. | CO3 |
| Q8. | Write notes on (a) Conscious sedation
(b) 2 nd Gas effect | CO3 |
| Q9. | Describe the aims of pre-medication of anaesthesia. | CO1 |
| Q10. | Illustrate the treatment procedure of methanol poisoning. | CO2 |

PART-III
Long Answers
(Instruction: Answer two out of three questions)

(2 x 10 = 20 marks)

- | | | |
|------|--|--------|
| Q11. | A. Discuss enterohepatic recirculation process helps longer stay of drugs in the body. Discuss the routes of excretion of systemically absorbed drugs. | CO1 |
| | B. State the major effector pathways for GPCR functioning. Schematically enumerate functioning of any one of the effector pathways. | CO1 |
| Q12. | A. Discuss the physiological roles of opioids in different body systems. | CO2 |
| | B. Classify local anaesthetic agents. Discuss the mechanism of action of these drugs. Explain the consequences of administering vasoconstrictor with local anaesthetics. Mention the uses of local anaesthetic agents. | CO1, 2 |
| Q13. | Define and classify epilepsy. State clinical classification of antiepileptic drugs with examples. | CO1, 2 |

:27/04/2023:M