

27/05/2016

Total No. of printed pages = 5

PY 132405

Roll No. of candidate

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2016

B. Pharm 4th Semester End-Term Examination

PHARMACOLOGY - I

Full Marks-100 Pass Marks-35 Time-Three hours

The figures in the margin indicate full marks
for the questions.

- I. Choose the correct word and fill in the blank / write true or false of the following (any four) : $(1+1) \times 4 = 8$
1. (a) is an example of Phase-2 reaction of drug metabolism. (Oxidation / Reduction / Acetylation)
 - (b) Highly ionisable drugs can cross the blood-brain-barrier at higher rate. (True / False)
 2. (a) atropine, scopolamine can cause sedation. (Like / Unlike)
 - (b) Salbutamol produces more tachycardia than isoprenaline. (True / False)

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3. (a) The barbiturate used for induction of anaesthesia by i.v. route is (Phenobarbital / Thiopental / Mephobarbital)
- (b) Traditional opioid receptors include μ , κ and receptors. (α / β / γ / δ)
4. (a) Deficiency of dopamine activity in brain leads to (epilepsy / parkinsonism / schizophrenia)
- (b) As anxiolytic, are the first line of drugs. (benzodiazepines / barbiturates)

II. Answer any *five* questions : $2 \times 5 = 10$

1. Define therapeutic index.
2. State the advantages of sublingual route.
3. What do you mean by pharmacokinetics ?
4. Name the neurotransmitters at the neuro-effector junctions of the sympathetic and parasympathetic system.
5. How many stages are there in general anaesthesia and which stage is called the stage of surgical anaesthesia ?
6. Name the two major phases of physiological sleep.

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III. Answer any *four* questions : $3 \times 4 = 12$

1. Give examples of cholinergic blockers, at least one in each case, at the ganglia, neuroeffector junction and neuromuscular junction.
2. Differentiate between side effect and toxic effect.
3. Differentiate between general anaesthesia and local anaesthesia.
4. Define the words tolerance and cross-tolerance.
5. Name the mediators of inflammation.
6. It is dangerous to drink alcohol excessively to obtain protection from cold. – Explain.

IV. Answer any *eight* questions : $5 \times 8 = 40$

1. Isoprenaline and salbutamol both are bronchorelaxant, which one will be your choice for the management of asthma and why? State the effects of β -adrenergic blockers on our heart.
2. Discuss the effect of pH on absorption of drugs.

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3. Write a short note on blood-brain-barrier mentioning the structural difference between the blood capillaries in brain and the blood capillaries in periphery.
4. State the autonomic mechanism of action of mydriasis and meiosis, with the help of a neat diagram.
5. Discuss the pharmacological actions of propranolol on CVS.
6. Discuss the role of succinylcholine as a muscle relaxant.
7. Write a brief note on synergistic effect and antagonistic effect of drugs.
8. Write a brief note on COX pathways.
9. Discuss the role of levodopa and carbidopa in the management of parkinsonism.
10. State the mechanism of action of benzodiazepines.
11. Write a short note on Lithium as mood stabilizer.
12. Write an account on drug dependence.

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V. Answer any *three* questions : $3 \times 10 = 30$

1. Discuss the different factors which may modify the action of drugs. 10
2. What do you mean by first order and zero order kinetics ? Write a brief note on Phase-1 and Phase -2 reactions of drug metabolism. 4+6=10
3. Discuss the mechanism of action of cholinesterase inhibitors and show how the action of reversible cholinesterase inhibitors differ from irreversible cholinesterase inhibitors. 5+5=10
4. Classify local anaesthetics with examples on the basis of their clinical importance. State the mechanism of action of local anaesthetics. Adrenaline or any suitable vasoconstrictor is usually co-administered with local anaesthetics. Explain. 3+5+2=10
5. Write a short account on pain pathway. Discuss the pharmacological action of morphine on CNS. 4+6=10

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