



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Optomety-2021/B.Optomety-2022/B.Optomety-2023

Course Name – Basic & Ocular pharmacology

Course Code - BOPTOC404

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) A drug is identified by a scientific body USAN (United State Adopted Names) Council by its:
 - a) Brand Name
 - b) Generic Name
 - c) Chemical Name
 - d) None of These
- (ii) The study that relates to Pharmacodynamics is:
 - a) Metabolism of drug
 - b) Toxic effect of drug
 - c) Interaction with receptor
 - d) Mechanism of action of drug
- (iii) Choose the factor that does not alter bioavailability of a drug:
 - a) State of ionization
 - b) Route of administration
 - c) Degree of plasma protein binding
 - d) Vascularity at site of administration
- (iv) Select the drug used as ophthalmic anesthetics:
 - a) Timolol
 - b) Betaxolol
 - c) Atropine
 - d) Diclofenac
- (v) Why does the sclera act as a barrier to the drug delivery?
 - a) High vascularization which causes rapid drug clearance
 - b) High permeability to aqueous solutions.
 - c) Presence of high lipid content
 - d) Thick dense structure which limits diffusion
- (vi) Cornea acts as an anatomical barrier for:
 - a) Lipophilic Drugs
 - b) Hydrophilic drugs
 - c) both a & b
 - d) None of the above
- (vii) Tell the drug that blocks and inhibits the activity of the acetylcholine (ACh):
 - a) Cholinergics
 - b) Sympathomimetics
 - c) Anticholinergics
 - d) Cholinimimetics
- (viii) The type II, type III and type IV hypersensitivity reactions is identified to be suppressed by:

- a) Adrenaline
c) Corticosteroids
- b) Antihistaminics
d) Sod. cromoglycate
- (ix) Widespread and prolonged use of an antibiotic leads to emergence of drug resistant strains because antibiotics are associated with:
- a) Induce mutation in the bacteria
c) Allow resistant strains to propagate preferentially
- b) Promote conjugation among bacteria
d) None of These
- (x) Report the role of Beta antagonists:
- a) constrict bronchi
c) increase blood pressure
- b) increase heart rate
d) interfere with far vision
- (xi) Identify the drug that will not cause an attack of narrow angle glaucoma in patients with narrow angle:
- a) Atropine
c) Tropicamide
- b) Phenyleprine
d) Timolol
- (xii) A common side effect associated with all NSAID drugs:
- a) Constipation
c) Gastric irritation
- b) Xerostomia
d) Drowsiness
- (xiii) The effective treatment predicted for dendritic ulcer of the cornea is:
- a) Surface anesthesia
c) Systemic corticosteroids
- b) Local corticosteroids
d) Acyclovir ointment
- (xiv) The relationship between drug concentration & time is identified by:
- a) Pharmacogenomics
c) Pharmacodynamics
- b) Pharmacovigilance
d) Pharmacokinetics
- (xv) Identify the side effect of Chloramphenicol:
- a) Dizziness
c) Bone marrow suppression
- b) Headache
d) Immunity Suppression

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write about the parenteral routes of drug administration (3)
3. Enumerate any 3 factors influencing drug absorption. (3)
4. State any 3 common properties of aminoglycosides. (3)
5. Name the constituents of WHO-ORS. (3)
6. Decide the treatment procedure for Uveitis (3)

OR

Analyze the effect of cycloplegics on the muscarinic receptors in the ciliary body. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the relative positions of periocular injections with diagram. (5)
8. Describe about some special drug delivery systems in pharmacology (5)
9. Identify the signs, symptoms & treatment method for Bacterial Conjunctivitis (5)
10. Justify the role of wetting agents & tear substitutes in eyes (5)
11. Classify the drugs used in Peptic ulcer. Give example of an osmotic laxative. (5)
12. Illustrate the different routes of drug administration in clinical pharmacology (5)

OR

Compare the mechanism of action of carbonic anhydrase inhibitors and beta-blockers in lowering intraocular pressure IOP? (5)