



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – B.Optomety-2022/B.Optomety-2023/B.Optomety-
2024/B.Optomety-2025

Course Name – Ocular Anatomy

Course Code - BOPTOC201

(Semester II)

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)are not true glands but folds of mucous membrane present in the palpebral conjunctiva between the tarsal plates and fornix.
 - a) Meibomian gland
 - b) Goblet cells
 - c) Glands of Manz
 - d) Henle's glands
- (ii) Select the thickest layer of cornea.
 - a) Epithelium
 - b) Stroma
 - c) Descemet's membrane
 - d) Endothelium
- (iii) Lipid layer of tear film is secreted by _____.
 - a) Meibomian gland
 - b) Goblet cells
 - c) Henle's glands
 - d) Lacrimal gland
- (iv) Destruction of goblet cells can result due to _____.
 - a) Hypovitaminosis B
 - b) Hypovitaminosis A
 - c) Hypervitaminosis B
 - d) Hypervitaminosis A
- (v) The primary action of lateral rectus muscle is _____.
 - a) Elevation
 - b) Abduction
 - c) Extortion
 - d) Adduction
- (vi) Select the origin of inferior rectus muscle.
 - a) Annulus of Zinn
 - b) Trochlea
 - c) Sphenoid Bone
 - d) Maxillary Bone
- (vii) The optic chiasm is the site of partial decussation of fibres from which part of the retina?
 - a) Temporal retina
 - b) Nasal retina
 - c) Central retina
 - d) Peripheral retina
- (viii) Name the translucent membrane that covers the white of the eye and the inside of the eyelids.

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| <p>a) Conjunctiva
c) Choroid</p> <p>(ix) Which layers of the LGN are parvocellular?
a) 1 and 2
c) All 6 layers</p> <p>(x) Identify the innermost layer of the choroid.
a) Anterior limiting layer
c) Internal limiting membrane</p> <p>(xi) Select the vein which drains the ciliary body and the choroid.
a) Central retinal vein
c) Inferior ophthalmic vein</p> <p>(xii) The koniocellular layers of the LGN are located:
a) Between the magnocellular layers
c) Between all layers</p> <p>(xiii) Select the vertical diameter of the cornea
a) 11 mm
c) 12.75mm</p> <p>(xiv) Select the thickness of the cornea at the periphery of the cornea
a) 1 mm
c) 0.52 mm</p> <p>(xv) Which layer of the eyelid contains the meibomian glands?
a) Skin layer
c) Tarsal plate</p> | <p>b) Iris
d) Retina</p> <p>b) 3, 4, 5, and 6
d) None of the these</p> <p>b) Supraciliary lamina
d) Basal lamina</p> <p>b) Superior ophthalmic vein
d) Vortex vein</p> <p>b) Between the parvocellular layers
d) Only in layers 1 and 2</p> <p>b) 11.75mm
d) 12 mm</p> <p>b) 0.67 mm
d) 0.73 mm</p> <p>b) Subcutaneous connective tissue
d) Orbital septum</p> |
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Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe the anatomy of the trabecular meshwork. (3)
3. Discuss about XYZ hypothesis of corneal regeneration. (3)
4. Discuss about the histological structure of sclera. (3)
5. Differentiate between magnocellular and parvocellular layers of the LGN. (3)
6. A 25-year-old man accidentally scratches his eye with a tree branch while working in his garden. He complains of severe eye pain, watering, and sensitivity to light. Fluorescein staining shows a superficial corneal abrasion. a. Which layer of the cornea is most likely affected in this case? b. How does the cornea heal after an abrasion, and which layer is responsible for regeneration? (3)

OR

A patient is complaining of swelling of eye lid. Write in details about the glands that could be responsible for the condition. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the gross anatomy of conjunctiva with an schematic diagram also explain it's blood supply. (5)
8. Discuss the attachment of the vitreous. (5)
9. Explain the different types of iris muscles, and how they contribute to iris function. (5)

10. A patient is complaining of limited elevation, on examination you have suspected superior rectus palsy. Describe the origin, and insertion of the muscle and write down your logic behind the suspicion. (5)
11. Discuss the gross anatomy of the orbit. (5)
12. A 55-year-old woman with a history of diabetes presents with blurred vision and a cloudy cornea. Slit-lamp examination reveals corneal edema. 1: Which corneal layer is responsible for causing edema in this case? 2: How does its dysfunction lead to corneal edema? (5)

OR

A 60 years old patient is complaining of watering and you have suspected obstruction of the lacrimal drainage system. Draw and describe the macroscopic anatomy of the related structure. (5)

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