

DIPLOMA IN OPTOMETRY TECHNOLOGY**FIRST YEAR****PAPER I – OCULAR ANATOMY AND PHYSIOLOGY***Q.P. Code : 841501***Time : Three Hours****Maximum : 100 marks****Answer ALL questions in the same order.****I. Elaborate on:**

	Pages (Max.)	Time (Max.)	Marks (Max.)
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- | | | | |
|---|---|---------|----|
| 1. Describe the general features, microscopic features and functions of cornea. | 7 | 20 min. | 10 |
| 2. Define binocular vision and describe the grades of binocular single vision. | 7 | 20 min. | 10 |
| 3. Describe the extra ocular muscles in detail. Add a note on its action. | 7 | 20 min. | 10 |

II. Write Notes on:

- | | | | |
|---------------------------------------|---|--------|---|
| 1. Blepharospasm. | 4 | 9 min. | 5 |
| 2. Conjunctiva. | 4 | 9 min. | 5 |
| 3. Layers of retina. | 4 | 9 min. | 5 |
| 4. Accommodation reflex. | 4 | 9 min. | 5 |
| 5. Wald's visual cycle. | 4 | 9 min. | 5 |
| 6. Development of crystalline lens. | 4 | 9 min. | 5 |
| 7. Intraocular pressure. | 4 | 9 min. | 5 |
| 8. Chemical composition of tear film. | 4 | 9 min. | 5 |
| 9. Angle of anterior chamber. | 4 | 9 min. | 5 |
| 10. Entoptic phenomena. | 4 | 9 min. | 5 |

III. Short Answers on:

- | | | | |
|--|---|--------|---|
| 1. What is scleral spur? | 1 | 3 min. | 2 |
| 2. What is macular vision? | 1 | 3 min. | 2 |
| 3. What is visual acuity? | 1 | 3 min. | 2 |
| 4. Name the segments of eyeball. | 1 | 3 min. | 2 |
| 5. What is achromatopsia? | 1 | 3 min. | 2 |
| 6. What is photopic vision? | 1 | 3 min. | 2 |
| 7. What is mydriasis? Give examples for sympathomimetic drugs. | 1 | 3 min. | 2 |
| 8. What is visually evoked potential? | 1 | 3 min. | 2 |
| 9. What is optic radiation? | 1 | 3 min. | 2 |
| 10. Name the glands of the eyelids. | 1 | 3 min. | 2 |

[LC 0212]

FEBRUARY 2013

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Anatomy of upper eye lid.
2. Physiology of binocular single vision.
3. Actions of Extra ocular muscles.

II. Write notes on:

(10 x 5 = 50)

1. Electro retinogram.
2. Factors responsible for corneal transparency.
3. Anatomy of lacrimal drainage system.
4. Anatomy of optic nerve.
5. Circulation of aqueous humour.
6. Structure of sclera.
7. Range of accommodation.
8. Functions of tears.
9. Types of pupillary reflexes.
10. Physiology of dark adaptaion.

III. Short Answers on:

(10 x 2 = 20)

1. Boundaries of anterior chamber.
2. Situation and nerve supply of sphincter pupillae muscle.
3. Anatomy of macula lutea.
4. Parts of conjunctiva.
5. Insertions of recti muscles.
6. Hering's theory of colour vision.
7. Factors responsible for transparency of lens.
8. Name the accessory lacrimal glands.
9. What is rhodopsin?
10. Origin , insertion and action of Muller's muscle.

[LD 0212]

AUGUST 2013

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Trace the visual pathway.
2. Dimensions, layers and histology of cornea.
3. Photochemical changes occurring in retina when light falls on retina.

II. Write notes on:

(10 x 5 = 50)

1. Anatomy of ciliary body.
2. Anatomy of vitreous humour.
3. Origin, insertion, and nerve supply of levator palpebrae superioris.
4. Distance correction of Snellen's test.
5. Visually evoked potential.
6. Tests for contrast sensitivity.
7. Physiology of aqueous humour formation.
8. Binocular eye movements.
9. Grades of binocular single vision.
10. Functions of lid.

III. Short Answers on:

(10 x 2 = 20)

1. What is ora-serata?
2. What is Tenon's capsule.
3. What is posterior chamber.
4. Actions of inferior oblique muscle.
5. What is intra ocular pressure?
6. Near vision acuity tests.
7. Circulations of tears.
8. What is palpebral fissure?
9. What is scotopic vision.
10. Insertions of recti muscles with respect to limbus.

[LE 0212]

FEBRUARY 2014

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Layers, histology, and muscles of iris.
2. Describe the anatomy of lacrimal apparatus with diagram.
3. What are all the Factors responsible for maintenance of corneal transparency?

II. Write notes on:

(10 x 5 = 50)

1. Photo receptors in retina.
2. Structures of crystalline lens.
3. Anatomy of sclera.
4. Origin, insertion, and nerve supply of superior oblique muscle.
5. Electro retinogram.
6. Functions of tear fluid.
7. Circulation of aqueous humour.
8. Theories of colour vision.
9. Glands of eye lids.
10. Vision tests in children.

III. Short Answers on:

(10 x 2 = 20)

1. Anatomy of choroid.
2. Fovea centralis.
3. Regions of conjunctiva.
4. Types and actions of ciliary muscles.
5. Anatomy of trabecular meshwork.
6. Muller's muscle.
7. Name the abductors.
8. What is dark adaptation?
9. Blood supply of optic nerve.
10. Name the cells present in the inner nuclear layer.

[LF 0212]

AUGUST 2014

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the structures that form the eyelid and describe the origin, insertion and function of levator palpebrae superioris muscle in detail.
2. Describe the five layers of cornea and the factors responsible for corneal transparency.
3. Explain the origin, insertion and action of the four recti muscles.

II. Write notes on:

(10 x 5 = 50)

1. Limbus.
2. Drainage of aqueous.
3. Structures at the apex of orbit.
4. Colour vision.
5. Blood retinal barrier.
6. Optic chiasma.
7. Binocular single vision.
8. Structure and functions of tearfilm.
9. Factors influencing intraocular pressure.
10. Blood supply to retina.

III. Short Answers on:

(10 x 2 = 20)

1. Muller's muscle.
2. Tenon's capsule.
3. Lacrimal puncta.
4. Pupil.
5. Optic tract.
6. Visually evoked response.
7. Dark adaptation.
8. Visual cortex.
9. Irido corneal angle.
10. Tests for colour vision.

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Explain the three coats of eyeball, and describe the blood retinal barrier in detail.
2. Explain the secretion and drainage of aqueous humour.
3. Discuss the visual pathway in detail.

II. Write notes on:

(10 x 5 = 50)

1. Drainage of lacrimal secretion.
2. Orbicularis oculi muscle.
3. Superior orbital fissure.
4. Vitreous humour.
5. Fornix.
6. Levator palpebrae superioris muscle.
7. Dark adaptation.
8. Tests for binocular single vision.
9. Light reflex.
10. Electro retinography.

III. Short Answers on:

(10 x 2 = 20)

1. Adduction.
2. Layers of tear film.
3. Optic canal.
4. Meibomian gland.
5. Descemet's membrane.
6. Lacrimal gland.
7. Superior rectus muscle.
8. Visual cycle.
9. Grades of binocular single vision.
10. Accommodation convergence reaction.

[LH 0815]

AUGUST 2015

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the anatomy of retina with diagram.
2. Describe the pathway of aqueous flow.
3. Describe intra ocular pressure, how it is maintained and the instruments used for measuring IOP?

II. Write notes on:

(10 x 5 = 50)

1. What is the rationale of Snellen's chart? How do you measure visual acuity in a child?
2. What is color vision and how is color vision assessed?
3. What is accommodation?
4. Layers of retina.
5. How corneal transparency is maintained?
6. Describe the pathway of tear flow.
7. EOG.
8. BSV.
9. Angle of anterior chamber.
10. Anatomy of Uvea.

III. Short Answers on:

(10 x 2 = 20)

1. Write down the layers of tear film
2. Where is the ciliary ganglion located?
3. Vitreous.
4. Anatomy of lens.
5. Nerve supply and action of Superior oblique muscle.
6. Pupil.
7. Draw optic nerve head.
8. Function of Second Cranial nerve.
9. Role of vitamin A in the eye.
10. What are zonules? Describe the function of zonules.

[LI 0216]

FEBRUARY 2016

Sub. Code: 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the visual pathway.
2. How corneal transparency is maintained?
3. What are the extra ocular muscles? Write the nerve supply & the action of each muscle.

II. Write notes on:

(10 x 5 = 50)

1. What is the rationale of Snellen's chart? How do you measure visual acuity in a child?
2. What is color vision and how is color vision assessed?
3. What is accommodation?
4. What are the layers of cornea?
5. Oculomotornerve and the muscles innervated by it.
6. What is tonometry? Name the instruments used for tonometry.
7. Lacrimal passage.
8. Role of vitamin A in eye.
9. Tear film.
10. VEP.

III. Short Answers on:

(10 x 2 = 20)

1. BSV.
2. Draw optic nerve head.
3. Anatomy of lens.
4. Pupil.
5. Choroid.
6. Ciliary body.
7. Canaliculi.
8. Lacrimal gland.
9. Anatomy of conjunctiva.
10. Tear film.

[LJ 0816]

AUGUST 2016

Sub. Code : 1501

DIPLOMA IN OPTOMETRY TECHNOLOGY

FIRST YEAR

PAPER I – OCULAR ANATOMY AND PHYSIOLOGY

Q.P. Code : 841501

Time : Three hours

Maximum: 100 Marks

Answer **ALL** questions.

I. Elaborate on:

(3 x 10 = 30)

1. Anatomy of uvea.
2. Describe the secretion and drainage of aqueous humour.
3. Describe the secretion and drainage of tears.

II. Write notes on:

(10 x 5 = 50)

1. Intra ocular pressure.
2. Extra ocular muscles.
3. Pupillary reflex.
4. Layers of cornea.
5. Levator palpebrae superioris muscle.
6. Optic nerve.
7. Vitreous humour.
8. Visual pathway.
9. Factors responsible for corneal transparency.
10. Physiology of accommodation.

III. Short answers on:

(10 x 2 = 20)

1. Optic chiasm.
2. Naso lacrimal duct.
3. Colour vision.
4. Limbus.
5. Lacrimal sac.
6. Pupillary reflex.
7. Fusion.
8. Visual acuity.
9. Anterior chamber.
10. Conjunctiva.
