

DIPLOMA IN OPTOMETRY TECHNOLOGY**SECOND YEAR****PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS***Q.P. Code : 841511***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. Discuss how a doctor decides on which type of lens would the patient benefit the most. | 7 | 20 min. | 10 |
| 2. Define Legal blindness and discuss low vision. | 7 | 20 min. | 10 |
| 3. Basic Principles in contact Lens. | 7 | 20 min. | 10 |

II. Write notes on:

- | | | | |
|---|---|--------|---|
| 1. Inter-Pupillary distance: Its importance. | 4 | 9 min. | 5 |
| 2. How to Adjust eye glasses. | 4 | 9 min. | 5 |
| 3. Centering of the lenses. | 4 | 9 min. | 5 |
| 4. How can you help your Aphakic patient to choose glasses. | 4 | 9 min. | 5 |
| 5. Care of contact lenses. | 4 | 9 min. | 5 |
| 6. Extended wear contact lenses. | 4 | 9 min. | 5 |
| 7. Keratoconus contact lens fitting. | 4 | 9 min. | 5 |
| 8. Corneal problem associated with contact lens wearer. | 4 | 9 min. | 5 |
| 9. Magnification consideration in low vision devices. | 4 | 9 min. | 5 |
| 10. High-plus addition lens in low vision. | 4 | 9 min. | 5 |

III. Short Answers on:

- | | | | |
|---|---|--------|---|
| 1. Base Curve. | 1 | 3 min. | 2 |
| 2. Plastic Lenses. | 1 | 3 min. | 2 |
| 3. Problem caused by misaligned or improper frame size. | 1 | 3 min. | 2 |
| 4. What is retroscopic tilt? | 1 | 3 min. | 2 |
| 5. Soft Lenses: Describe. | 1 | 3 min. | 2 |
| 6. Therapeutic contact lenses. | 1 | 3 min. | 2 |
| 7. Giant Papillary conjunctivitis (GPC). | 1 | 3 min. | 2 |
| 8. Contra-indication for contact lenses. | 1 | 3 min. | 2 |
| 9. Telescope. | 1 | 3 min. | 2 |
| 10. Stand magnifier. | 1 | 3 min. | 2 |

[LC 0212]

FEBRUARY 2013

Sub. Code: 1511

DIPLOMA IN OPTOMETRY TECHNOLOGY

SECOND YEAR

PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS

Q.P. Code : 841511

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Interpupillary distance.
2. Cosmetic Contact lenses.
3. Evaluation of a person with low vision.

II. Write notes on:

(10 x 5 = 50)

1. Lens decentration.
2. Photochromic lenses.
3. Boxing system.
4. Effects of contact lens on corneal nutrition.
5. Contact lens fitting in Aphakia.
6. Care of contact lenses.
7. Categories of low vision.
8. Optical low vision aids.
9. Factors affecting visual acuity.
10. Vision charts used in low vision assessment.

III. Short Answers on:

(10 x 2 = 20)

1. Name the categories of blindness.
2. Define low vision.
3. Effects of low vision on the individual.
4. Name four ocular conditions with low vision.
5. Anti reflected coating.
6. Name two contra indications for contact lens fitting.
7. Two indications for extended wear contact lens.
8. Name four materials used for spectacle frames.
9. Refractive index of crown glass, flint glass, CR – 39 lens, Polycarbonate lens.
10. Bridge of a frame.

[LD 0212]

AUGUST 2013

Sub. Code: 1511

DIPLOMA IN OPTOMETRY TECHNOLOGY

SECOND YEAR

PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS

Q.P. Code : 841511

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Spectacle frame materials, their merits and demerits.
2. Classification of Contact lenses.
3. Indications and contraindications of contact lenses.

II. Write notes on:

(10 x 5 = 50)

1. Materials used for making lenses.
2. Progressive lenses.
3. Auto reflective coating.
4. Datum system.
5. Lens decentration.
6. Properties of Contact lens materials.
7. Effect of Contact lens on corneal nutrition.
8. Nomenclatures associated with contact lens design. Substantiate with diagram.
9. Categories of Low vision.
10. Optical Low vision aids.

III. Short Answers on:

(10 x 2 = 20)

1. Properties of an ideal lens material.
2. Instrument to measure visual axis distance.
3. Surface defects.
4. Types of contact lenses.
5. Define low vision.
6. Blindness.
7. Effects of low vision on the individual.
8. Define magnification. What are the types of magnification?
9. CCTV.
10. Angular Magnification.

DIPLOMA IN OPTOMETRY TECHNOLOGY**SECOND YEAR****PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS***Q.P. Code : 841511***Time : Three Hours****Maximum : 100 marks****Answer ALL questions****I. Elaborate on:****(3 x 10 = 30)**

1. Write in detail about lens and frame materials.
2. One patient's spectacle power in OD;- 2.00DS/ - 4.00DL X90, OS:- -10.00DS /- 4.00DL X90. What treatment modalities will you prescribe and write about it.
3. One patient's age is 67 years old and he has come to your clinic with the complaints of distorted central vision. What are the differential diagnoses of this condition? Write in detail about "Age Related macular Degeneration".

II. Write notes on:**(10 x 5 = 50)**

1. Write about "Inter papillary distance and its significance.
2. Write about "Datum System of frame measurement".
3. Define Lens. Write about properties of spectacle lens.
4. Differentiate Soft and semi soft contact lens.
5. Write advantages and Disadvantages of contact lens over spectacle.
6. Write advantage and Disadvantages of "Soft contact lens materials.
7. One patient's spectacle power in OD:- - 4.00DS /- 3.00DL X90, OS:- - 3.00DS /- 3.00DL X 90. Patient wants contact lens. What type of lens will you prescribe? Find out final contact lens power.
8. Write indications and contra indications of contact lens wear.
9. Write about "Grades of vision".
10. Differentiate "Optical and Non-Optical devices in Low vision".

III. Short Answers on:**(10 x 2 = 20)**

1. Define Blindness.
2. Define Anti- Reflection Coating.
3. Define Progressive lens.
4. What is "Oxygen permeability of contact lens".
5. What is Therapeutic contact lens?
6. Differentiate base curve and Diameter of contact lens.
7. Define deposit of contact lens.
8. Write ideal spectacle lens materials.
9. Write properties of contact lens.
10. Define Low vision.

[LG 0215]

FEBRUARY 2015

Sub. Code: 1511

DIPLOMA IN OPTOMETRY TECHNOLOGY

SECOND YEAR

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Q.P. Code : 841511

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Spectacle frame materials, their merits and demerits.
2. Classification of Contact lenses.
3. Indications and contraindications of contact lenses.

II. Write notes on:

(10 x 5 = 50)

1. Materials used for making lenses.
2. Progressive lenses.
3. Auto reflective coating.
4. Datum system.
5. Lens decentration.
6. Properties of Contact lens materials.
7. Effect of Contact lens on corneal nutrition.
8. Nomenclatures associated with contact lens design. Substantiate with diagram.
9. Categories of Low vision.
10. Optical Low vision aids.

III. Short Answers on:

(10 x 2 = 20)

1. Properties of an ideal lens material.
2. Instrument to measure visual axis distance.
3. Surface defects.
4. Types of contact lenses.
5. Define low vision.
6. Blindness.
7. Effects of low vision on the individual.
8. Define magnification. What are the types of magnification?
9. CCTV.
10. Angular Magnification.

[LH 0815]

AUGUST 2015

Sub. Code: 1511

DIPLOMA IN OPTOMETRY TECHNOLOGY

SECOND YEAR

PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS

Q.P. Code : 841511

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. What are the measurements you take before prescribing contact lenses?
Discuss the procedure of fitting contact lenses.
2. Define legal blindness and discuss low vision.
3. Write in detail about lens and frame materials.

II. Write notes on:

(10 x 5 = 50)

1. Inter pupillary distance and its importance.
2. Lens decentration.
3. Back vertex distance.
4. Extended wear contact lenses.
5. Factors affecting visual acuity.
6. Problems of improper frame size.
7. Corneal complication of contact lenses.
8. Anti-reflection coating.
9. Focimeter.
10. How can you help your aphakic patient to choose glasses?

III. Short Answers on:

(10 x 2 = 20)

1. Properties of an ideal lens material.
2. Giant papillary conjunctivitis.
3. Contra indication of contact lenses.
4. CCTV.
5. Name the categories of blindness.
6. Pinhole test.
7. Crutch spectacles.
8. Contact lens solutions.
9. Surface defects.
10. Instrument to measure visual axis distance.

[LI 0216]

FEBRUARY 2016

Sub. Code: 1511

DIPLOMA IN OPTOMETRY TECHNOLOGY

SECOND YEAR

PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES, LOW VISION AIDS

Q.P. Code : 841511

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Discuss the different categories of low vision, advantages and disadvantages of various low vision aids.
2. Indications and contra indications of contact lenses.
3. Discuss different materials used in spectacle lenses and explain about photo chromatic lenses in detail.

II. Write notes on:

(10 x 5 = 50)

1. Complication of using contact lens.
2. Artificial eye.
3. Progressive lenses.
4. Keratometry.
5. Plastic frames.
6. Problems of improper frame size.
7. Factors affecting visual acuity.
8. Vision charts used in low vision assessment.
9. Effects of contact lens on corneal nutrition.
10. Bifocal lenses.

III. Short Answers on:

(10 x 2 = 20)

1. Base curve.
2. Disposable contact lens.
3. Pre-requisites of a good frame.
4. Crutch spectacles.
5. Back vertex distance.
6. Vision charts used in low vision assessment.
7. Blindness.
8. Surface defects.
9. Two indication for extended wear contact lenses.
10. Name four materials used for spectacle frames.

**DIPLOMA IN OPTOMETRY TECHNOLOGY
FIRST YEAR
PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES,
LOW VISION AIDS**

Q.P. Code: 841511

Time : Three Hours

Maximum : 100 Marks

Answer All questions.

I. Elaborate on:

(3 x 10 = 30)

1. A patient has a spectacle Rx: OD: -4.00DS /-2.50DC x 90, OS: -4.50DS. K readings are: OD K1: 47.00D @ 180 (7.18mm), K2: 44.00D @ 90 (7.67mm) & OS K1: 46.00D @ 180 (7.34mm), K2: 44.50D @ 90(7.58mm). HVID is 11.5mm. Answer the following:
 - a) What contact lens options would you give for each eye? Why?
 - b) As per your lens choice above, calculate the trial contact lens base curve, total diameter and power for right eye, considering a vertex distance of 12mm.
2. Non-optical low vision devices.
3. What is IPD? Explain the procedure for measuring distance, near and monocular PDs.

II. Write notes on:

(10 x 5 = 50)

1. Discuss about the various spectacle lens materials.
2. Boxing system.
3. Principle of Anti-reflection coatings & uses.
4. Bifocal lens segment types.
5. Explain about the uses, advantages and disadvantages of various types of Magnifiers.
6. Types of telescopes and their uses as low vision aids.
7. Categories of visual impairment.
8. Types of contact lens deposits. Name few ocular complications resulting from deposits.
9. Draw diagram and explain about contact lens design parameters.
10. Contraindications for contact lens wear.

III. Short answers on:

(10 x 2 = 20)

1. Advantages & disadvantages of progressive lenses.
2. Aspherical lenses.
3. Spectacle lenses and frames for children.
4. Define extended wear contact lens. Give examples of lens materials suitable as EW.
5. Name the contact lens options available for keratoconus patients.
6. HEMA.
7. CLARE.
8. Effect of low vision on an individual.
9. Angular magnification.
10. Define blindness.

**DIPLOMA IN OPTOMETRY TECHNOLOGY
FIRST YEAR
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Q.P. Code: 841511

Time : Three Hours

Maximum : 100 Marks

Answer All questions.

I. Elaborate on:

(3 x 10 = 30)

1. Various spectacle frames materials and their features.
2. Define contact lens. What are the different ways by which contact lenses are classified? Elaborate on the types.
3. A 12 year old student is diagnosed to have Retinitis Pigmentosa. He has complaints of difficulty seeing at night, difficulty seeing the classroom board, and poor side vision. Explain how you will evaluate this patient in the low vision clinic and manage his low vision?

II. Write notes on:

(10 x 5 = 50)

1. Draw a spectacle frame and mark the parts. Discuss about various spectacle frame types.
2. Progressive lens markings.
3. Photochromic lenses.
4. Low vision rehabilitation services.
5. Optical low vision aids.
6. Define low vision. What are the different categories of low vision?
7. Advantages of contact lenses over spectacle lenses.
8. Therapeutic contact lenses.
9. What is a contact lens care system? Explain the various steps involved in contact lens care.
10. Physical properties of contact lens materials.

III. Short answers on:

(10 x 2 = 20)

1. Typoscopes.
2. Fresnel prisms.
3. Uses of filters as low vision aids.
4. CCTV.
5. Anti-reflection coating.
6. Polaroid lenses.
7. Datum system.
8. LARS rule.
9. Push-up test.
10. Contact lens deposits.

**DIPLOMA IN OPTOMETRY TECHNOLOGY
SECOND YEAR**

**PAPER I – OPTOMETRIC OPTICS, CONTACT LENSES,
LOW VISION AIDS**

Q.P. Code: 841511

Time : Three Hours

Maximum : 100 Marks

Answer All questions.

I. Elaborate on:

(3 x 10 = 30)

1. Evaluation of a low vision person.
2. Discuss in detail about keratometry.
3. Write about magnifications used in Low vision aids with examples.

II. Write notes on:

(10 x 5 = 50)

1. What is extended wear contact lens? Write its indications.
2. Explain on any three corneal contact lens complications.
3. Categories of low vision.
4. Contact lens fitting in aphakia.
5. Optical low vision aids.
6. Explain on hand and stand magnifiers.
7. Datum system.
8. Properties of contact lens materials.
9. Contact lens in keratoconus.
10. What is IPD? How will you measure it?

III. Short answers on:

(10 x 2 = 20)

1. Define visual impairment.
2. Pantoscopic tilt.
3. What is therapeutic contact lens?
4. Oxygen permeability of contact lens.
5. Write about Refractive index.
6. Pinhole test.
7. What are various non optical aids used in low vision?
8. Spectacle frame materials.
9. Surface defects.
10. Advantage and disadvantage of progressive lenses.
