



GOVERNMENT OF KERALA
DIRECTORATE OF MEDICAL EDUCATION
DIPLOMA IN OPHTHALMIC ASSISTANT COURSE
REGULAR & SUPPLEMENTARY EXAMINATIONS APRIL 2024
DOA-F-I- APR-2024

Time -3hrs.

Max.marks: 100

PART I - PAPER-I
BASIC SCIENCE IN OPHTHALMOLOGY AND VISUAL OPTICS
(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION-A

- I. Describe the etiology, symptoms, signs and treatment of hypermetropia (12)
- II. Write Short notes on (6x5=30)
- a. Staining techniques of microorganism
 - b. Mydriatics
 - c. Keratoplasty
 - d. Bjerrum screen
 - e. Structure of eyeball
 - f. Streak retinoscopy
- III. Answer to the point (8x1=8)
- a. Size of pinole is
 - b. Power of lens is expressed as
 - c. Retinoscopy done in a dark room is done at a distance of
 - d. The type of lens used in the correction of regular astigmatism
 - e. Mention two sources of vitamin A
 - f. Blurring of vision for near work occurs in
 - g. IOL/ intraocular lens is generally made of
 - h. Inward deviation of eye is known as

P.T.O

SECTION B

1. Describe the physiology of vision and colour vision. Describe the methods for assessing colour vision (6+6=12)

II. Write short notes on (6x5=30)

- a. Lensometer
- b. Trial lenses
- c. Post mydriatic test
- d. Advantages and disadvantages of aphakic spectacles
- e. Normal schematic eye
- f. Atropine

III Answer to the point (8x1=8)

- a. Standard method of IOP measurements is by
- b. Normal AC/A ratio is
- c. Refractive error seen in nuclear cataract
- d. Scissor reflex is seen in
- e. Vitamin A deficiency causes
- f. Strongest cycloplegic drug is
- g. Eye donation is contraindicated in
- h. Name 2 antibiotics used in treatment of corneal ulcer
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PART I - PAPER-II

OPTICS AND REFRACTION AND OPHTHALMIC EQUIPMENTS

(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION-A

- I. What is Accommodation? Mention the anomalies of accommodation and its treatment (12)
- II. Write short notes on (6x5=30)
- a. Astigmatism
 - b. Cover test
 - c. Perimetry
 - d. Intraocular lens
 - e. Ishihara chart
 - f. Vision testing in children
- III. Answer to the point (8x1=8)
- a. Normal IOP range is
 - b. Mention two sources of vitamin A
 - c. Name two types of retinoscopy
 - d. Power of condensing lens used with indirect ophthalmoscope is
 - e. Roving ring scotoma is seen in
 - f. Example of static perimeter is
 - g. IOL power is measured by formula
 - h. Refractive power of cornea is

P.T.O

SECTION B

- I. Describe the etiology, types, symptoms, signs and treatment of hypermetropia (12)
- II. Write short notes on (6x5=30)
- a. A scan
 - b. Subjunctive verification of refraction
 - c. Streak Retinoscopy
 - d. Neutralisation of lenses
 - e. Jackson's cross cylinder
 - f. Binocular single vision
- III. Answer to the point. (8x1=8)
- a. Drug of choice for cyclopegia in children less than 4 years
 - b. Retinoscopy is done in a dark room at a distance of
 - c. The type to lens used in the correction of regular astigmatism
 - d. Lensometer is used to measure
 - e. Size of pinole is
 - f. Unilateral Aphakia can be corrected by
 - g. Relieving prism is used in
 - h. Hess screen is used in

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DOA-S-I- APR-2024

Time -3hrs.

Max.marks: 100

**PART II - PAPER-I
HEALTH EDUCATION, COMMUNITY OPHTHALMOLOGY AND
COMMON EYE DISORDERES**

(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION-A

- I. Define glaucoma. Enumerate the risk factors of Primary open angle glaucoma. What are the different techniques of tonometry, mention the field defects of Primary open angle glaucoma. (2+2+4+4=12)
- II. Write precise answers (8x1=8)
- a. One cause for hypopyon corneal ulcer
 - b. 2 complications of corneal ulcer
 - c. Abnormal protrusion of eyeball is called.....
 - d. Mutton fat keratic precipitates are seen in
 - e. SAFE strategy is for the elimination of
 - f. 2 causes of red eye
 - g. Common fungus causing corneal ulcer
 - h. Rosette cataract is seen in
- III. Answer briefly (6x5=30)
- a. Posterior capsular opacification
 - b. Pterygium
 - c. Buphthalmos
 - d. Fungal corneal ulcer
 - e. Lens induced glaucoma
 - f. Rehabilitation of the blind.

P.T.O

SECTION – B

- I. Enumerate the causes of childhood blindness and visual impairment. Discuss the methods of assessing visual acuity in children. Define amblyopia, mention the types and management. (2+5+5=12)
- II. Write precise answers (8x1=8)
- a. Chronic granulomatous inflammation of the meibomian glands is
 - b. Gold standard for IOP recording
 - c. Nerve supply of Lateral rectus
 - d. Capsulotomy is done by laser
 - e. Blood in anterior chamber is called
 - f. Most sensitive part of retina is
 - g. Cobble stone papillae is seen in
 - h. Two causes of limbal nodule
- III. Answer Briefly (6x5=30)
- a. Vitamin A deficiency
 - b. Vision 2020
 - c. Keratoconus
 - d. Leucocoria
 - e. Entropion
 - f. NPCB

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DOA-S-II-APR-2024

Time -3hrs.

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**PART II - PAPER-II
OPHTHALMIC TECHNIQUES, OPTICS AND REFRACTION GLASSES**
(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION-A

- I. Discuss the principles and optics of retinoscopy. Describe the different stages. Explain the procedure of retinoscopy. (4+4+4=12)
- II. Write precise answers: (8x1=8)
- a. Normal AC/A ratio
 - b. Axial length of eye ball is measured by
 - c. Toric lenses correct -----
 - d. Corneal endothelial cell count is done using
 - e. An example for indentation tonometer
 - f. The angle of anterior chamber is visualized by
 - g. Refractive power of cornea is
 - h. Two uses of OCT in Ophthalmology
- III. Answer briefly (6x5=30)
- a. Optics and correction of aphakia
 - b. Uses of prisms in Ophthalmology
 - c. Convergence insufficiency
 - d. Jackson's cross cylinder
 - e. Subjective verification of refraction
 - f. Applanation tonometry

P.T.O

SECTION – B

I. Define Binocular single vision. What are the grades of BSV? Describe the different tests of BSV. (2+5+5=12)

II. Write precise answers (8x1=8)

- a. Gold standard for IOP measurement is
- b. Scissoring reflex in retinoscopy is seen in
- c. Pelli-Robson chart is used for measuring
- d. Name 2 dyes used in ophthalmic practice.
- e. Name a drug which causes miosis
- f. Maddox wing is used for measuring
- g. An example of static perimetry
- h. Rigid IOL is made of

III. Answer briefly (6x5=30)

- a. Sturm's conoid
- b. Progressive lenses
- c. Low vision aids
- d. Fundus fluorescein angiography
- e. Myopia-Optics, types and management.
- f. Donder's reduced eye.

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