

Third Year Optometry Examination
Binocular Vision and Orthoptics

Date : 02-01-2019, Wednesday]

[Max. Marks : 80

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.
(5) Use separate answer books for each section.

Q1 Fill in the blanks (10x1)

(10)

1. Penalization for near involves _____
2. Fusion is defined as _____
3. The ability to appreciate stereopsis in a patient with esotropia would indicate the presence of _____
4. The secondary action of Inferior Oblique muscle is _____
5. The state of retinal correspondence in a patient with 10 degree subjective and 10 degree objective angle of deviation is _____
6. Accommodative facility can be assessed by _____
7. AC/A ratio is described as _____
8. Using Hirschberg test to diagnose heterophoeia requires assumption of _____
9. Fixation disparity is _____
10. Panum's area is defined as _____

Q2 Answer any five of the following (5x6)

(30)

1. Explain in details with diagram the anatomy and physiology of action of Superior Oblique Muscle
2. Discuss in details the clinical characteristics of Strabismic Amblyopic patient
3. What is Physiologic Diplopia? Explain it with diagram.
4. Write a short note on microtropia
5. What are different methods of measurement of angle of deviation
6. Explain the advantages of Binocular Vision. What are the monocular clues to stereopsis

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Q3 Fill in the blanks (10x1)

1. Tendency of one eye to wheel rotate relative to other is called _____
2. A person having 8PD exophoria at a distance of 4m and 25PD exophoria at 30cm is said to have _____
3. V phenomenon is present where _____
4. Latent nystagmus is revealed by _____
5. The direction of gaze in which horizontal or vertical separation of image is greatest in case of right Inferior Oblique palsy _____
6. The method in which AC/A ratio is measured by changing the fixation distance from 6m to 30 cm is _____
7. The 3 components of head posture are _____
8. Relieving prisms are prescribed to _____
9. A telecanthus gives the appearance of _____
10. When the angle of deviation remains fairly constant in all fields of gaze, the deviation is said to be _____

(30)

Q4 Answer any five of the following (5x6)

1. Explain diplopia charting with example
 2. Write short note on Beilschowsky head tilt test
 3. What are the uses of synoptophore
 4. Explain in detail the investigation required in case of Primary Divergent Squint
 5. Discuss in detail the investigation in case of accommodative convergent deviation
 6. Write in detail the classification of strabismus
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Third Year Optometry Examination
Contact Lens I & II

Date : 04-01-2019, Friday]

[Max. Marks : 80

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.
(5) Use separate answer books for each section.

SECTION A:**Q.1. Answer in Short****(10 marks)****a). MCQ (1 mark each)**

- What is the average open eye temperature range of the normal human cornea?

a. 33.4 to 33.9 °C	b. 34.2 to 34.5 °C
c. 34.9 to 35.4 °C	d. 36.2 to 37.7° C
- Which one of the following tear evaluation tests is the least invasive procedure?

a. Assessment of the tear meniscus	b. Schirmer tear test
c. Phenol red thread test (PRTT)	d. TBUT with fluorescein
- Which of the following combinations gives the correct average corneal curvature, centre thickness, and refractive index?

Corneal Curvature	Centre thickness	Refractive index
a. 7.80mm	0.48 to 0.51mm	1.336
b. 7.80mm	0.52 to 0.55 mm	1.376
c. 7.98mm	0.52 to 0.55mm	1.376
d. 7.98mm	0.50 to 0.52 mm	1.3375
- What is the Internal astigmatism in an eye with subjective refraction $-5.00 / -3.00 \times 180^\circ$ and keratometry readings 44.00 / 46.00 @ 90° ?

a. $-1.00 \text{ DC } \times 90^\circ$	b. $-1.00 \text{ DC } \times 180^\circ$
c. $-2.00 \text{ DC } \times 90^\circ$	d. $-5.00 \text{ DC } \times 180^\circ$
- The following is FALSE about a contact lens with the following numbers 8.8/13.7/-5.25:

a. The base curve of contact lens is 13.7	b. the diameter of contact lens is 13.7
c. The base curve of contact lens is 8.8	d. the contact lens has a power of -5.25

b). Match the Columns (1 mark each)

- | A | B |
|--------------------|---|
| 1] Rust spot | 1] Greasy, smooth, shiny film on lens surface |
| 2] Lysozyme | 2] Water-spot, finger print |
| 3] Lipid deposit | 3] Indistinct borders |
| 4] Jelly bumps | 4] Tear Protein |
| 5] Calcium deposit | 5] Non tear related deposit |
| | 6] Tear related deposit |

Q.2. Write short notes on (any five)

(30 marks)

1. Note on RGP Tricurve lens design.
2. Write a note on contact lenses materials properties. And company products availability in India.
3. Contraindications of contact lenses, with reasons.
4. Discuss various ocular complication causes due to low DK/t hydrogel soft lenses.
5. Function of preservative system in multipurpose solutions.
6. Mr. Mehta, age 34 year old, has a spectacle correction of RE -3.50/ -2.00 x180 & LE -3.50/ -1.00x 180, Keratometry reading in BE = 7.40mm@180 & 7.70mm @ 90. He wants to try contact lenses. What options will you suggest and what investigation will you do? Describe the management of this case.

SECTION B:

Q.3. Short answer

(10 marks)

1. Any MPDS can be used directly in the eye for wearing the lenses. (True/False)
2. Jelly bumps contain only Lipid. (True/False)
3. B+L HO series provide power till -5.00 D. (True/False)
4. Pregnant women in her 1st trimester can be given contact lenses. (True/False)
5. Pervaporation occurs more if the lens is low water content thick lenses. (True/False)
6. Modulus of elasticity is defined as _____
7. _____ is an example of inorganic deposits.
8. A patient wears a soft trial lens with a back optic zone radius (BOZR) of 8.60 mm and overall diameter 13.50 mm. The lens fit is satisfactory, but you decide to fit a larger lens with a diameter of 14.00 mm. _____ BOZR would be required the new contact lens, in order to keep the same lens-cornea relationship?
9. _____ is the minimum amount of corneal edema present if striae are observed in the posterior Stroma.
10. Cornea is composed of _____ % water.

Q.4. Write short notes on (any five)

(30 marks)

1. Write a note on contact lens manufacturing methods.
 2. Discuss the options available for correcting Both eye paediatric pseudophakes, including the wear Modality, lens types, oxygen transmissibility & replacement schedules?
 3. Discuss Non tear related deposits in CL.
 4. Explain Stand Alone method & Hydrogen peroxide system.
 5. Discuss various ocular complication causes due to hydrogel lenses.
 6. Note on soft Toric CL stabilization techniques?
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Third Year Optometry Examination
Major Eye Diseases & Systemic Diseases

Date : 08-01-2019, Tuesday]

[Max. Marks : 80

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.
(5) Use separate answer books for each section.

SECTION A

Q.1 MCQ

(10)

1. Bussaca's nodule seen in
 - a) Granulomatous uveitis
 - b) Non Granulomatous uveitis
 - c) Keratitis
 - d) Scleritis

2. Left optic tract lesion cause
 - a) Right hemianopia
 - b) left hemianopia
 - c) Bitemporalanopia
 - d) Binasaanopia

3. Copper FB can cause
 - a) Sunflower cataract
 - b) Siderotic cataract
 - c) Snow fleck cataract
 - d) Rosette cataract

4. Neovascular Glaucoma caused by
 - a) Diabetes
 - b) Hypertension
 - c) Malaria
 - d) Anaemia

5. Arlt's line is seen in
 - a) Spring Catarrh
 - b) Glaucoma
 - c) Trachoma
 - d) Cataract

6. Uncrossed diplopia occur in
 - a) exotropia
 - b) esotropia
 - c) Hypertropia
 - d) Hypotropia

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7. Syphilis can be diagnosed by

- a) Kveim test
- b) VDRL
- c) ELISA
- d) ESR

8. Argon fluoride laser is

- a) UV laser
- b) Infra red Laser
- c) Solid state Laser
- d) Micro Laser

9. Pseudoptosis is seen in

- a) Phthisisbulbi
- b) Proptosis
- c) Hypertropia
- d) Exotropia

10. Size of Whattman Filter paper is

- a) 5*45
- b) 5*30
- c) 5*50
- d) 5*25

Q.2 Write Short Notes on (Any Five)

(30)

1. Ptosis
2. Ocular manifestation of AIDS
3. Ocular manifestation of Thyroid
4. Retinal detachment
5. Phaco emulsification
6. Laser in ophthalmology

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SECTION B

Q.3 MCQ

(10)

1. DCR is contraindicated in
 - a) Fistula
 - b) Chronic dacryocystitis
 - c) Mucocele
 - d) Dacryolith

2. In Blepharophimosis Syndrome, this does not incorporated
 - a) ptosis
 - b) proptosis
 - c) Telecanthus
 - d) ectropion

3. Steroids can produce
 - a) posterior polar cataract
 - b) posteriorsubcapsular cataract
 - c) nuclear cataract
 - d) cortical cataract

4. Foster fuch's spot is seen in
 - a) Retinitis pigmentosa
 - b) ARMD
 - c) CMV Retinitis
 - d) Pathological Myopia

5. Stoker's line is seen in
 - a) Pterygium
 - b) Keratoconus
 - c) Wilson Disease
 - d) Kearatoglobus

6. Sudden painless loss of vision occur in all EXCEPT
 - a) CRAO
 - b) CRVO
 - c) Retinal detachment
 - d) Acute congestive glaucoma

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7. Leukocoria is seen in all EXCEPT

- a) Mature cataract
- b) Retinoblastoma
- c) Keratoconus

8. Inverse Hypopyon is seen in

- a) Retinoblastoma
- b) Retinitis pigmentosa
- c) Silicon oil emulsification
- d) Uveitis

9. What is the drug of choice in Malignant glaucoma ?

- a) Atropine
- b) Pilocarpine
- c) Steroid
- d) Antibiotic

10. True exfoliation is seen in

- a) Watchmakers
- b) Glass blowers
- c) Painters
- d) Doctors

Q.4 Write Short Notes on (Any Five)

(30)

1. Vit A deficiency
 2. Ocular manifestation of Leprosy
 3. Neurofibromatosis
 4. Chemical Injuries
 5. Peripheral Ulcerative Keratitis
 6. Diabetic Retinopathy
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