



5th Semester Examination –2021-22

Subject : Low Vision Care Roll No :
Course : B. Optometry
Full Marks : 50 Time : 3 Hours.

Instructions to the Candidates:

- Read the question paper very carefully.
- Candidates are required to give their answers in their own words as far as practicable.
- Question Paper is divided into Three Parts –A, B & C.
- Part-A is containing 10 multiple choice questions.
- Part- B containing SIX questions out of which FOUR questions are to be answered.
- Part C containing FOUR questions out of which TWO questions are to be answered.
- Do not write anything except your Roll No. on the question paper.
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PART A

MULTIPLE CHOICE QUESTIONS

(10x1=10)

1. WHO headquarters are situated in ___?
a. Stockholm
b. Tokyo
c. Geneva
d. Berlin
2. ADL stands for?
a. Articles of daily life
b. Activities of daily living
c. Assistant diurnal action
d. None of the above
3. According to WHO there are ___ categories of Vision impairment?
a. 4
b. 3
c. 5
d. 8
4. The two visual functions considered under WHO's definition of low vision are _____ and _____.
a. Visual field and contrast sensitivity
b. Visual field and visual acuity
c. Contrast sensitivity and color perception
d. Glare and visual acuity
5. In an RP patient, where he is restricted to remain indoors it is a _____.
a. Visual disorder
b. Visual impairment
c. Visual disability
d. Visual handicap
6. CCTV is a/an _____ device
a. Optical
b. Electronic
c. Non optical
d. Software

7. Which of the following is not a cause of Childhood blindness?
- | | |
|-------------------------|------------------------|
| a. Vitamin A deficiency | c. ROP |
| b. AMD | d. Congenital cataract |
8. A patient of Parkinson must not be prescribed
- | | |
|-----------------------|--------------------|
| a. Reading stand | c. Stand magnifier |
| b. Handheld magnifier | d. C.C.T.V. |
9. Which of the following assistive devices will not help with photosensitivity?
- | | |
|-----------------|------------------------|
| a. Visor | c. Smart cane |
| b. Side shields | d. Photochromic lenses |
10. The most common form of sensory substitution for low vision patients involves the use of
- | | |
|-------------|--------------|
| a. auditory | c. olfaction |
| b. tactile | d. sight |

PART B

ANSWER ANY FOUR OUT OF SIX

(4x5=20)

1. Classification of visual impairment
2. Spectacle magnifiers
3. Laws and rights associated with Low vision and Blindness
4. Importance of Contrast Sensitivity
5. Dealing mechanism of humans to vision loss
6. Difference between Keplerian and Galilean telescope

PART C

ANSWER ANY TWO OUT OF FOUR

(2x10=20)

1. Define Low Vision. What is functional Vision? Elaborate on the epidemiology of low vision.
2. Name any two diseases where visual field is compromised. How can we rehabilitate a person with severe visual field loss?
3. **Case Study:** An 11 y/o class 5th student XYZ has OU congenital optic atrophy. His chief complaints are difficulty in keeping up with School work and participation in sports. OD vision is 20/400 and OS vision is HM+. As a low vision expert, what will you advise and prescribe the student and how will you rehabilitate this child?
4. Elaborate on Low Vision history recording and clinical evaluation in an infant.



5th Semester Examination –2021-22

Subject : Contact Lens-1
Course : B. Optometry
Full Marks : 50

Roll No :
Time : 3 Hours.

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PART A

MULTIPLE CHOICE QUESTIONS

(10x1=10)

1. More the sagittal depth of the Contact Lens

- a. Flatter is the lens fit
- b. Steeper is the lens fit
- c. No effect on lens fit
- d. None of these.

2. Bausch and Lomb keratometer is a

- a. One-position keratometer
- b. Two-position keratometer
- c. None of these
- d. Both (a) and (b).

3. Normal tear break-up time is

- a. 10 seconds
- b. 45 seconds
- c. < 10 seconds
- d. 15 to 45 seconds.

4. By push-up test one usually measures

- a. Fitting of the lens
- b. Power of the lens
- c. Wettability of the lens
- d. Material property of the lens.

5. RGP's lens fabrication technique is

- a. Lathing
- b. Spin-casting
- c. Both (a) and (b)
- d. None of these.

6. Who can be considered as the 'father of contact lenses'?
- René Descartes
 - Leonardo da Vinci
 - Otto Wichterle
 - Sir John Herschel.
7. DK value of PMMA is practically
- > 60
 - zero
 - 12 – 60
 - < 40.
8. A flat fitting lens is characterized by all except
- Excessive movement
 - High or low riding horizontally displaced lens
 - Little or no movement
 - None of these.
9. All are properties of contact lens except
- Wettability
 - Elasticity
 - Oxygen permeability
 - Oxygen transmissibility.
10. "Parallelepiped, wider beam" illumination technique of SLB is used to
- Assess Corneal thickness
 - Determining the anterior chamber angle
 - Assessing the wettability of a contact lens material
 - Observe corneal stroma, epithelium, lens surface and endothelium.

PART B

ANSWER ANY FOUR OUT OF SIX

(4x5=20)

- Indications and Contraindications of contact lens wear.
- Advantages and disadvantages of 'Lathing'
- Explain 3 and 9'O clock staining
- Role of tear lens in RGP fitting
- Advantages and disadvantages of contact lens over spectacles.
- Oxygen permeability and oxygen transmissibility

PART C

ANSWER ANY TWO OUT OF FOUR

(2x10=20)

- Describe pre-fitting steps required for contact lens fitting
- Explain the 'spin cast' and 'molding' technique of contact lens manufacture techniques. Explain their advantages and disadvantages.
- Explain the benefits of "Care and Maintenance" of RGP Lens. Write the names of multipurpose solutions and disinfectants available in Indian market.
- Describe the complications associated with RGP contact Lens



ARKAJAIN
University
Jharkhand

5th Semester Examination –2021-22

Subject : Geriatric Optometry & Pediatric Optometry
Course : B. Optometry
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Roll No :

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PART A

Q1. MULTIPLE CHOICE QUESTIONS:

(10x1=10)

1. Arcus senilis is a physiological ____ deposition in the corneal periphery
 - a. Protein
 - b. Iron
 - c. Lipid
 - d. Mucopurulent
2. Which of the following is not a physiological change?
 - a. Senile cataract
 - b. Presbyopia
 - c. Optic nerve glioma
 - d. Age related Dry eye
3. Which of the following is not a geriatric disease?
 - a. ROP
 - b. Glaucoma
 - c. AMD
 - d. Cataract
4. Which of the following systems are affected in the senile population?
 - a. Respiratory
 - b. Excretory
 - c. Digestive
 - d. All the above
5. ROP stands for
 - a. Retinal obstructive periphery
 - b. Retinopathy of prematurity
 - c. Retinitis Pigmentosa
 - d. Retinopathy of Pulmonary disease
6. Generally, _____ is the refractive error that is present in new born
 - a. Myopia
 - b. Astigmatism
 - c. Hyperopia
 - d. None of the above
7. The process of decrease in the hyperopic power in the initial years is called-
 - a. Ametropization
 - b. Emmetropization
 - b. Visualization
 - d. None of the above

8. Focusing ability of an infant develops accurately by
- | | |
|---------------|----------------|
| a. 3-6 months | b. 8-10 months |
| c. 1-2 years | d. At birth |
9. Crystalline lens loses almost _____ dioptres with age
- | | |
|--------|---------|
| a. 20D | b. 10D |
| c. 2D | d. None |
10. Select true or false- "*Iris color from birth remains unchanged and consistent*"
- | | |
|---------|----------|
| a. True | b. False |
|---------|----------|

PART B

ANSWER ANY FOUR OUT OF SIX

(4x5=20)

1. Amblyopia
2. Determining sensory adaptation
3. Developmental milestones
4. History taking in pediatric age group
5. Two senile ocular conditions
6. Ocular Effect of systemic medicines on elderly patients

PART C

ANSWER ANY TWO OUT OF FOUR

(2x10=20)

1. Describe the visual milestones in pre, peri and post-natal life of an individual.
2. Describe two diseases (in each) that cause low vision in-
 - Geriatric age group
 - Pediatric age group
3. Explain in detail the changes that occur in ocular structures that occur in due course of time.
4. Elaborate how the different visual functions will be assessed in pediatric age group.



5th Semester Examination –2021-22

Subject : Binocular Vision-1
Course : B. Optometry
Full Marks : 50

Roll No:

Time : 3Hours.

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PART A

MULTIPLE CHOICE QUESTIONS:

(10x1=10)

1. Physiologic diplopia is manifest in case of object situated—
a) On horopter
b) Within panum's space
c) Outside panum's space
d) All of this
2. Example of monocular clues except—
a) Looming
b) Disparate retinal image
c) Motion parallax
d) Aerial prospective
3. Occlusion is a treatment for—
a) Toxoplasmosis
b) Exophoria
c) Amblyopia
d) Refractive error
4. Prism bar cover test is used to detect
a) Squint
b) Amblyopia
c) Stereopsis
d) None of these
5. Hirschberg test is used to detect
a) Heterophobia
b) Heterotopia
c) Diplopia
d) None of these

6. Vision with single eye
a) Monocular
c) Bi ocular
7. No co-ordination between two eyes
a) Monocular
c) Bi ocular
8. Co-ordinated vision from two eyes
a) Monocular
c) Bi ocular
9. The correct neuromuscular development so that the visual axes are directed at the object
a) Motor mechanism
c) Mental process
10. The equal image clarity and size in the two eyes
a) Motor mechanism
c) Mental process
- b) Binocular
d) None of these
b) Binocular
d) None of these
b) Binocular
d) None of these
b) Sensory mechanism
d) None of these
b) Sensory mechanism
d) None of these

PART B

ANSWER ANY FOUR OUT OF SIX

(4x5=20)

1. Herring's law of equal innervations
2. Horopter
3. Sensory adaptation
4. Accommodation excess
5. Local and Global Stereopsis
6. Grades of Binocular Vision

PART C

ANSWER ANY TWO OUT OF FOUR

(2x10=20)

1. What is BSV? Describe the advantages of BSV? What are the prerequisites of BSV? How is BSV measured using Synaptophore?
2. Discuss the classic features and management of Convergence Insufficiency.
3. Define Diplopia. Describe crossed and uncrossed Diplopia. Elaborate on the management techniques for a phoria case.
4. What is accommodative facility? How do we measure it? Explain the process.