

B.OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
PAPER - I

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 9 = 63)

ANATOMY

- Q. 1. Enumerate the bones forming various boundaries of orbit and enumerate contents of orbit. (5+2)
- Q. 2. Write a note on various extra-ocular muscles: origin, insertion, nerve supply and actions. (7)
- Q. 3. Write difference between smooth muscle, skeletal muscle and cardiac muscle. (7)

PHYSIOLOGY

- Q. 4. Define blood pressure. Enumerate its main components giving normal values of each. Also describe briefly the methods of recording blood pressure. (1+3+3)
- Q. 5. Give the composition of blood. Write briefly on classification and functions of white blood cells. (3+4)
- Q. 6. Write briefly with labelled diagrams on the following: (3.5+3.5)
- Visual pathway and effect of lesions at different levels on it
 - Synapse-structure and transmission of impulse across it

BIOCHEMISTRY

- Q. 7. List the B complex vitamins. Describe the sources, requirement, functions and diseases caused due to deficiency of niacin. (1.5+5.5)
- Q. 8. Write short notes on: (3.5+3.5)
- Plasma proteins
 - Phospholipids
- Q. 9. Write about the following: (3.5+3.5)
- Draw a well labelled structure of DNA
 - Fasting & post prandial plasma glucose

B.OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
PAPER - I (MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(½ x 14 = 07)

Select the most appropriate answer and **encircle** the alphabet against it.

ANATOMY

1. Ulna bone is present in:
 - a. Arm
 - b. Leg
 - c. Thigh
 - d. Forearm
2. Strongest wall of orbit:
 - a. Medial
 - b. Lateral
 - c. Roof
 - d. Floor
3. Levator palpebrae superioris is supplied by nerve:
 - a. Oculomotor
 - b. Trochlear
 - c. Facial
 - d. Abducent
4. Uveal tract consist of:
 - a. Choroid
 - b. Ciliary body
 - c. Iris
 - d. All of the above
5. Sagittal plane divide the body in:
 - a. Anterior & posterior
 - b. Right & left
 - c. Upper & lower
 - d. None of the above
6. Shoulder joint is:
 - a. Ball & socket joint
 - b. Hinge joint
 - c. Plane joint
 - d. Pivot joint
8. The normal respiratory rate in an adult ranges from _____ breaths/min.
 - a. 6-10
 - b. 10-14
 - c. 12-16
 - d. 16-20
9. Excessive bleeding and sudden loss of fluid results in _____ shock.
 - a. Anaphylactic
 - b. Cardiogenic
 - c. Hypovolemic
 - d. Septicemic
10. The gastric juice is:
 - a. Highly acidic
 - b. Mildly acidic
 - c. Highly alkaline
 - d. Mildly alkaline
11. Urine is temporarily stored in:
 - a. Gall bladder
 - b. Kidney
 - c. Nephrons
 - d. Urinary bladder
12. The hormones secreted by anterior pituitary gland include all **except**:
 - a. Prolactin
 - b. Growth hormone
 - c. Insulin
 - d. Thyroid stimulating hormone

BIOCHEMISTRY

PHYSIOLOGY

7. The normal volume of intracellular fluid is about:
 - a. 3 Litres
 - b. 11 Litres
 - c. 14 Litres
 - d. 28 Litres
13. Number of carbon atoms in ribose:
 - a. 3
 - b. 4
 - c. 5
 - d. 6
14. All are reducing sugars **except**:
 - a. Glucose
 - b. Fructose
 - c. Sucrose
 - d. Maltose

Regn. No. DD.....

Paper Code: BOPT102

B.OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Write short notes on the following:

- Q. 1. Development of the eye
- Q. 2. Anatomy of bony orbit
- Q. 3. Anatomy of the upper eye lid
- Q. 4. Anatomy of the angle of anterior chamber
- Q. 5. Anatomy of lens
- Q. 6. Transparency of cornea
- Q. 7. Pupillary reflexes
- Q. 8. Visual adaptation
- Q. 9. Binocular vision

B.OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II (MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

($\frac{1}{2} \times 14 = 7$)

Select the most appropriate answer and **encircle** the alphabet against it.

1. Mucin layer is secreted by:
 - a. Glands of Wollfring
 - b. Glands of Krauss
 - c. Goblet cells
 - d. None of the above
2. Polycoria, is a condition in which:
 - a. Pupil is jet black
 - b. There is leucocoria
 - c. More than one pupil
 - d. None of the above
3. Color vision is tested by:
 - a. Snellens chart
 - b. Ishihara chart
 - c. Jagers chart
 - d. None of the above
4. Versions are:
 - a. Conjugate movement
 - b. Disjugate movement
 - c. Uniocular movement
 - d. None of the above
5. Cornea consists of layers.
 - a. 6
 - b. 8
 - c. 4
 - d. 2
6. IOP stands for:
 - a. Intra operative pressure
 - b. Intra ocular pressure
 - c. Intraorbital pressure
 - d. None of the above
7. Main function of iris is:
 - a. To regulate amount of image to enter in eye
 - b. Colourful part of eye
 - c. To regulate amount of light to enter in eye
 - d. All of the above
8. Lateral rectus muscles is innervated by:
 - a. Upper branch of 3rd nerve
 - b. Lower branch of 3rd nerve
 - c. Trochlear nerve
 - d. Abducens nerve
9. The anteroposterior diameter of eye ball is:
 - a. 24 mm
 - b. 22 mm
 - c. 26 mm
 - d. 16 mm
10. The youngest lens fibers are present in:
 - a. Central core of the lens nucleus
 - b. Outer layer of the nucleus
 - c. Deeper layer of the cortex
 - d. Superficial layer of the cortex
11. Yoke muscle for right superior rectus is:
 - a. Left SR
 - b. Left IO
 - c. Left IR
 - d. Left SO
12. Which of the following extraocular muscle has sympathetic innervation?
 - a. LPS
 - b. Muller's
 - c. SR
 - d. IR
13. Avascular coat in eye is:
 - a. Cornea
 - b. Choroid
 - c. Iris
 - d. Retina
14. Ciliary ganglion is found in:
 - a. Eye ball
 - b. Orbit
 - c. Eyelids
 - d. None of the above

Regn. No. DD.....

Paper Code: BOPT103

B.OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
OPTICS
PAPER - III

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(9 x 7 = 63)

Explain all of the following :

- Q. 1. Prerequisites for visual acuity assessment
- Q. 2. Optical aberrations of the eye
- Q. 3. Astigmatism
- Q. 4. Absorptive lenses and coatings
- Q. 5. Safety and sports eye wear
- Q. 6. Characteristics of ideal frame material
- Q. 7. Boxing and datum system with suitable example
- Q. 8. Bifocal and progressive addition lenses
- Q. 9. Aniseikonia and its management

B. OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
OPTICS
PAPER - III (MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(½ x 14 = 7)

Select the most appropriate answer and **encircle** the alphabet against it.

1. How much image magnification is caused by one dioptre anisometropia?
 - a. 1
 - b. 3
 - c. 2
 - d. 4
2. Which is **not** the subjective method of refraction?
 - a. Duochrome test
 - b. Jackson's cross cylinder test
 - c. Pin-hole test
 - d. Auto-refractometer
3. Enumerate the changes which occur in an aphakic eye:
 - a. Eye becomes highly myopic
 - b. Total power of the eye is reduced to +44Ds from +60 Ds
 - c. Accommodation is reduced
 - d. Convergence is normal
4. German silver is also known as:
 - a. Aluminium
 - b. Nickel
 - c. Stainless steel
 - d. None of the above
5. CR 39 means:
 - a. Coloumbous resin
 - b. Columbia resin
 - c. Coated resin
 - d. All of the above
6. Progressive lens advantage over bifocal, does **not** include:
 - a. No image jump
 - b. Better cosmeses
 - c. Cheaper
 - d. Larger field of view
7. Vergence can be positive when:
 - a. Diverging light is travelling from left to right
 - b. Converging light is travelling from left to right
 - c. Converging light is travelling from right to left
 - d. None of the above
8. What will be focal length of +5 dioptre lens?
 - a. 15 cm
 - b. 40 cm
 - c. 30 cm
 - d. 20 cm
9. Crutch glasses are useful in:
 - a. Trichiasis
 - b. Ptosis
 - c. Entropion
 - d. None of the above
10. Z87I denotes:
 - a. Prescription eyewear
 - b. Sports eyewear
 - c. Protective eyewear
 - d. None of the above
11. Presbyopia is due to:
 - a. Loss of elasticity of lens capsule
 - b. Weakness of ciliary muscles
 - c. Weakness of suspensory ligament
 - d. All of the above
12. Which is not an error of refraction?
 - a. Myopia & hypermetropia
 - b. Presbyopia
 - c. Astigmatism
 - d. None of the above
13. Aniseikonia refers to:
 - a. Difference in the corneal diameter
 - b. Difference in the image size(retinal image)
 - c. Difference in the refractive power
 - d. Difference in image colour
14. **Against** movement red reflex is neutralized by:
 - a. Plano
 - b. Cylindrical
 - c. Concave lenses
 - d. Convex

Regn. No. DD.....

Paper Code: BOPT104

B. OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
BASIC ORTHOPTICS
PAPER - IV

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Write short notes on the following:

- Q. 1. Laws of EOM action
- Q. 2. Diagnostic positions of gazes
- Q. 3. Clinical assessment of convergence
- Q. 4. Anomalies of accommodation
- Q. 5. Fick's axis
- Q. 6. Anomalies of convergence
- Q. 7. Actions of EOM
- Q. 8. Adaptations to squint
- Q. 9. Cycloplegic refraction

B. OPTOM. FIRST YEAR EXAMINATION, AUGUST - 2019
BASIC ORTHOPTICS
PAPER - IV (MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

($\frac{1}{2} \times 14 = 7$)

Select the most appropriate answer and **encircle** the alphabet against it:

1. In Hirschberg test if corneal reflex is at pupillary margin, angle of squint is:
 - a. 7
 - b. 30
 - c. 45
 - d. 15
2. Versions are:
 - a. Conjugate movement
 - b. Disjugate movement
 - c. Unocular movement
 - d. None of the above
3. Synergists:
 - a. Muscles having the same primary action in the same eye
 - b. Muscles having opposite actions in the same eye.
 - c. Muscles (one from each eye) having opposite action
 - d. None of the above
4. Asthenopic symptoms are most marked with:
 - a. Cyclophoria
 - b. Hyperphoria
 - c. Esophoria
 - d. Exophoria
5. Adduction is caused by all **except**:
 - a. MR
 - b. SR
 - c. IR
 - d. SO
6. All superior muscles cause:
 - a. Extortion
 - b. Intortion
 - c. Elevation
 - d. Depression
7. Test to rule out microtropia is:
 - a. WFDT
 - b. 4 prism base out test
 - c. After image
 - d. None of the above
8. RLR & LMR act as yoke muscle for:
 - a. Levoversion
 - b. Dextroversion
 - c. Levodepression
 - d. Cycloversion
9. Stereopsis is ability to obtain:
 - a. Impression of one complete picture of two
 - b. Impression to see two dissimilar object simultaneously
 - c. Impression of depth by superimposition of two pictures
 - d. None of the above
10. Synaptophore eyepiece consist of:
 - a. Biconvex lens
 - b. Convex lens
 - c. Concave lens
 - d. None of the above
11. Smallest extra ocular muscle is:
 - a. Superior rectus
 - b. Inferior rectus
 - c. Superior oblique
 - d. Inferior oblique
12. Motor adaptation is:
 - a. Chin elevation
 - b. Amblyopia
 - c. Suppression
 - d. None of the above
13. Vergence facility is checked by:
 - a. Prism
 - b. Lens
 - c. Both
 - d. None of the above
14. Quantitative measurement of actions of extraocular muscles is done by:
 - a. Hess screen
 - b. Lees screen
 - c. Lancaster red-green test
 - d. All of the above

Regn. No.....

Paper Code: BOPT102

B. OPTOM. FIRST YEAR EXAMINATION, NOVEMBER - 2019
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II

Lib

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Write short notes on all of the following:

- Q. 1. Anatomy of apex of the orbit
- Q. 2. Anatomy of lacrimal system
- Q. 3. Levator palpebrae superioris
- Q. 4. Corneal endothelium
- Q. 5. Blood retinal barrier
- Q. 6. Types of binocular eye movements
- Q. 7. Visual pathway
- Q. 8. Different parts of optic nerve
- Q. 9. Physiology of intraocular pressure

B. OPTOM. FIRST YEAR EXAMINATION, NOVEMBER - 2019
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II (MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(½ x 14 = 7)

Select the most appropriate answer and **encircle** the alphabet against it.

1. Valve of Hasner is found in:
 - a. Common canalicular dust
 - b. Lacrimal sac
 - c. Nasolacrimal duct and meatus of nose
 - d. Puncta
2. Lateral rectus muscle originates from:
 - a. Annulus of Zinn
 - b. Lateral geniculate body
 - c. Lacrimal bone
 - d. LPS
3. Superior rectus and LPS are supplied by:
 - a. Superior division of 3rd nerve
 - b. Inferior division of 3rd nerve
 - c. Ciliary ganglion
 - d. 4th nerve
4. Depth of anterior chamber is:
 - a. 1 mm
 - b. 4 mm
 - c. 2.5 mm
 - d. 5 mm
5. Yellowish discoloration of macula lutea is due to:
 - a. Xanthophyll
 - b. Chlorophyll
 - c. Melanin
 - d. None of the above
6. Orbicularis oculi is supplied by:
 - a. 3rd nerve
 - b. 2nd nerve
 - c. 7th nerve
 - d. 5th nerve
7. Area of retina devoid of rods and cones is:
 - a. Macula
 - b. Fovea
 - c. Optic nerve
 - d. None of the above
8. Central corneal thickness is:
 - a. More than the periphery
 - b. Same as the periphery
 - c. Thinner than the periphery
 - d. None of the above
9. Longest extraocular muscle is:
 - a. Medial rectus
 - b. Superior oblique
 - c. Superior rectus
 - d. Inferior oblique
10. Far point of hypermetropic eye is:
 - a. In front of retina
 - b. Behind the retina
 - c. At infinity
 - d. None of the above
11. Constriction of pupil occurs due to:
 - a. Mullers muscle
 - b. Dilater pupillae
 - c. Constrictor pupillae
 - d. Lateral rectus muscle
12. Cones are responsible for:
 - a. Photopic vision
 - b. Scotopic vision
 - c. Peripheral vision
 - d. None of the above
13. Gland of Wolfring is:
 - a. Lacrimal gland
 - b. Salivary gland
 - c. Pituitary gland
 - d. Accessory lacrimal gland
14. Cornea gets nutrition from:
 - a. Atmosphere
 - b. Aqueous humor
 - c. Peripheral vessels
 - d. All of the above

Regn. No.....

Paper Code: BOPT103

**BACHELOR OF OPTOMETRY
FIRST YEAR EXAMINATION, NOVEMBER - 2019
OPTICS
PAPER - III**

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Write notes on all of the following -

- Q. 1. Snell law of refraction
- Q. 2. Destructive interference
- Q. 3. Toric transposition
- Q. 4. Bifocal and progressive addition lenses
- Q. 5. Visual acuity and its components
- Q. 6. Properties of light
- Q. 7. Types of frames and its parts
- Q. 8. Reduced eye
- Q. 9. Optics of convex mirror

Regn. No.....

Paper Code: BOPT103

BACHELOR OF OPTOMETRY
FIRST YEAR EXAMINATION, NOVEMBER - 2019
OPTICS
PAPER - III
(MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(½ x 14 = 7)

Select the most appropriate answer and **encircle** the alphabet against it.

1. Light ray passing through a prism obeys:
 - a. Donder law
 - b. Snell law
 - c. Listing law
 - d. Hering law
2. Light of single wavelength is called:
 - a. Monochromatic
 - b. Heterochromatic
 - c. Chromatic
 - d. None of the above
3. Which is **not** an error of refraction?
 - a. Myopia and hypermetropia
 - b. Presbyopia
 - c. Astigmatism
 - d. None of the above
4. Against movement red reflex is neutralized by:
 - a. Plano lens
 - b. Cylindrical lens
 - c. Concave lens
 - d. Convex lens
5. Normal human eye is insensitive to wavelength, between:
 - a. 200 - 300 nm
 - b. 350 - 450 nm
 - c. 450 - 500 nm
 - d. None of the above
6. Concave lens is:
 - a. Converging lens
 - b. Diverging lens
 - c. Focusing lens
 - d. None of the above
7. Emmetropia is:
 - a. Light coming from infinity are focused on retina
 - b. Light coming from infinity are focused behind the retina
 - c. Light coming from infinity are focused on retina with accommodation at rest.
 - d. None of the above
8. White light consists of colour.
 - a. 5
 - b. 7
 - c. 9
 - d. 11
9. This condition is known as an equal refractive error in both eyes:
 - a. Aniseikonia
 - b. Anisometropia
 - c. Isometropia
 - d. Esotropia
10. In aphakia pupil color is:
 - a. Jet brown
 - b. Jet black
 - c. Black
 - d. Grayish
11. Lens transparency is due to:
 - a. Regular arrangement of lens fibers
 - b. Small differences in refractive index between components
 - c. Accommodation
 - d. Tear film
12. The following are true about total internal reflection:
 - a. It does not occur when light travel from a medium with lower refractive index to one with higher index
 - b. It occurs when the incident ray exceeds the critical angle
 - c. Both of the above
 - d. None of the above
13. Advantage of progressive lens over bifocal does not include:
 - a. Absence of image jump
 - b. Better cosmesis
 - c. Cheaper
 - d. Larger field of view
14. Convex lens is also known as:
 - a. Minus lens
 - b. Converging lens
 - c. Meniscus lens
 - d. None of the above

Regn. No.....

Paper Code: BOPT104

**BACHELOR OF OPTOMETRY
FIRST YEAR EXAMINATION, NOVEMBER - 2019
BASIC ORTHOPTICS
PAPER - IV**

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Write short notes on the following:

- Q. 1. ARC and types
- Q. 2. Grades of binocular vision
- Q. 3. WFDT
- Q. 4. Inferior oblique muscle
- Q. 5. Diplopia
- Q. 6. Anomalies of accommodation
- Q. 7. Monofixation syndrome
- Q. 8. Beilchowsky test
- Q. 9. Infantile esotropia

Regn. No.....

Paper Code: BOPT104

BACHELOR OF OPTOMETRY
FIRST YEAR EXAMINATION, NOVEMBER - 2019
BASIC ORTHOPTICS
PAPER - IV
(MCQ)

Time allotted for MCQ - 15 minutes

(½ x 14 = 7)

B : MCQs (Single response type):

Select the most appropriate answer and **encircle** the alphabet against it.

1. Superior rectus inserts:
 - a. 6.6 mm from limbus
 - b. 5.5 mm from limbus
 - c. 7.7 mm from limbus
 - d. 8.5 mm from limbus
2. Second grade of binocular single vision is:
 - a. Fusion
 - b. Stereopsis
 - c. Simultaneous perception
 - d. None of the above
3. Critical period of visual development is:
 - a. First 2 months
 - b. First 1 year
 - c. First 3 years
 - d. None of the above
4. Normal values of NPC are:
 - a. 5-10 cm
 - b. 7-10 cm
 - c. 3-10 cm
 - d. 3-7 cm
5. At age of 45 years, near point is:
 - a. 25 cm
 - b. 33 cm
 - c. 7 cm
 - d. 50 cm
6. Quantitative measurement of actions of extraocular muscles is done by:
 - a. Hess screen
 - b. Lees screen
 - c. Lancaster red-green test
 - d. All of the above
7. Sensory adaptation includes:
 - a. Suppression
 - b. Mono fixation syndrome
 - c. Amblyopia
 - d. All of the above
8. Crossed diplopia seen in:
 - a. Exotropia
 - b. Esotropia
 - c. Hypotropia
 - d. Hypertropia
9. At age of 45 years ideal presbyopic correction should be:
 - a. 3 D
 - b. 2 D
 - c. 1 D
 - d. 0.5 D
10. Hess screen:
 - a. Aids in diagnosis of ocular motility defects
 - b. Measures the deviation
 - c. Measures overaction of muscles
 - d. All of the above
11. Direct cover test confirms presence of:
 - a. Latent deviation
 - b. Paralytic squint
 - c. Manifest squint
 - d. Cyclo deviation
12. In Hirschberg test if corneal reflex is at pupillary margin, angle of squint is:
 - a. 7
 - b. 30
 - c. 45
 - d. 15
13. Chances of ARC are more if squint develops between age of:
 - a. 2-3 yrs
 - b. 3-6 yrs
 - c. 1-6 yrs
 - d. 6-7 yrs
14. At birth the average axial length is:
 - a. 12 mm
 - b. 18 mm
 - c. 16 mm
 - d. 17 mm

Regn. No DD.....

Paper Code: BOPT101

B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
PAPER - I

[Time allotted: Two Hours]

[Max Marks: 70]

Note: Attempt all questions
Draw suitable diagram wherever necessary

A : Short answer questions:

(06 x 10 = 60)

ANATOMY

- Q. 1.** Write a note on extra-ocular muscles - Origin, insertion, nerve supply, action. **(10)**
- Q. 2.** Write about boundaries of the bony orbit with the bones contributing to their formation. **(10)**

PHYSIOLOGY

- Q. 3.** Draw a labeled diagram of cone. Briefly describe the test for color blindness. **(10)**
- Q. 4.** Name the blood group system. Explain the basis of its classification. **(10)**

BIOCHEMISTRY

- Q. 5.** Define and classify carbohydrates. Describe ophthalmic changes seen in diabetic patients. **(10)**
- Q. 6.** Write short notes on: **(5+5=10)**
- a. Vitamin A
 - b. Cholesterol

B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER – 2020
ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
PAPER - I
(MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(01 x 10 = 10)

Select the most appropriate answer and encircle the alphabet against it :

ANATOMY

1. Name of third (IIIrd) cranial nerve is:
 - a. Facial nerve
 - b. Abducent nerve
 - c. Oculomotor nerve
 - d. Trochlear nerve
2. Nerve of vision is:
 - a. Occulomotor
 - b. Optic
 - c. Trochlear
 - d. Abducent
3. Hyaline cartilage is found in:
 - a. Intervertebral disc
 - b. Trachea
 - c. Pubic symphysis
 - d. Pinna
4. Thin skin is found in:
 - a. Palm
 - b. Eyelid
 - c. Sole
 - d. Palm and sole

PHYSIOLOGY

5. The rough endoplasmic reticulum is the site for synthesis of:
 - a. Proteins
 - b. Carbohydrate
 - c. Cholesterol
 - d. Mucopolysachharides
6. The optical power of the eye is:
 - a. 25 diopters
 - b. 50 diopters
 - c. 60 diopters
 - d. 75 diopters
7. Rods and cones differ in all **except**:
 - a. Signal transduction
 - b. Light sensitivity
 - c. Wavelength
 - d. Acuity
8. What is normal glomerular filtration rate?
 - a. 100 ml/min
 - b. 125 ml/min
 - c. 150 ml/min
 - d. 175 ml/min

BIOCHEMISTRY

9. How many carbon atoms are there in Glucose?
 - a. 4
 - b. 5
 - c. 6
 - d. 3
10. Which of the following is a **not** a protein?
 - a. Albumin
 - b. Glycogen
 - c. Globulin
 - d. Fibrinogen

Regn. No. DD.....

Paper Code: BOPT102

B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II

[Time allotted: Two Hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(06 x 10 = 60)

Write notes on all of the following:

- Q. 1.** Lymphatic drainage of conjunctiva
- Q. 2.** Walls of orbit
- Q. 3.** Metabolism of the lens
- Q. 4.** Extraocular muscles
- Q. 5.** Yoke muscles
- Q. 6.** Blood supply of uveal tract

B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
OCULAR ANATOMY & PHYSIOLOGY
PAPER - II
(MCQ)

Time allotted for MCQ - 15 minutes

B: MCQs (Single response type):

(01 x 10 = 10)

Select the most appropriate answer and **encircle** the alphabet against it.

1. Medial rectus is:
 - a. Adductor
 - b. Abductor
 - c. Elevator
 - d. Depressor
2. Orbital volume is:
 - a. 30 cc
 - b. 20 cc
 - c. 10 cc
 - d. 12 cc
3. Lacrimal gland is located on:
 - a. Medial side
 - b. Supero-temporal
 - c. Inferior
 - d. Nasal
4. 6th cranial nerve supplies:
 - a. Lateral rectus
 - b. Inferior oblique
 - c. Superior oblique
 - d. Superior rectus
5. Thinnest wall of orbit is:
 - a. Roof
 - b. Medial
 - c. Floor
 - d. Lateral
6. Thickness of cornea at periphery:
 - a. 1 mm
 - b. 0.75 mm
 - c. 5.2 mm
 - d. 0.5 mm
7. All the extraocular muscles arises from annulus of Zinn **except**:
 - a. Superior rectus
 - b. Inferior rectus
 - c. Inferior oblique
 - d. Medial rectus
8. Superior rectus inserts:
 - a. 5.5 mm from limbus
 - b. 7.5 mm from limbus
 - c. 8.5 mm from limbus
 - d. 6.6 mm from limbus
9. Nerve supply of cornea is by:
 - a. Trigeminal nerve
 - b. Facial nerve
 - c. Abducent nerve
 - d. Trochlear nerve
10. The lens derives its nourishment by:
 - a. Aqueous humour
 - b. Vitreous humour
 - c. Cornea
 - d. Retina

Regn. No. DD.....

Paper Code: BOPT103

**B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
OPTICS
PAPER - III**

[Time allotted: Two Hours]

[Max Marks: 70]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

A : Short answer questions:

(06 x 10 = 60)

Write notes on all of the following -

- Q. 1.** Image formation by convex lens
- Q. 2.** Myopia
- Q. 3.** Laws of refraction and reflection
- Q. 4.** Simple transposition
- Q. 5.** Manufacturing of glasses
- Q. 6.** Interference and its clinical application

B. OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
OPTICS
PAPER - III
(MCQ)

Time allotted for MCQ - 15 minutes

(01 x 10 = 10)

B: MCQs (Single response type):

Select the most appropriate answer and **encircle** the alphabet against it

1. The following refers to the amount of light arriving at a given point:
 - a. Illuminance
 - b. Brightness
 - c. Shininess
 - d. None of the above
2. When ray is refracted from denser media to rarer media:
 - a. Refracted ray bends away from the normal
 - b. Refracted ray bends towards the normal
 - c. Ray does not deviate
 - d. None of the above
3. Jack in box phenomenon is seen in:
 - a. Cataract
 - b. Aphakic glasses
 - c. Myopia
 - d. Hyperopia
4. Wave length of visible portion of light is:
 - a. 400-700 nm
 - b. 300-400 nm
 - c. 700-900 nm
 - d. None of the above
5. The Fresnel prisms are used in:
 - a. Spectacles
 - b. Contact lens
 - c. IOL
 - d. All of the above
6. Anisometropia is difference in:
 - a. Image size of two eyes
 - b. Refractive status of two eyes
 - c. Palpebral aperture of two eyes
 - d. None of the above
7. Vision assessment in a child is done with:
 - a. Lea symbols
 - b. Snellen chart
 - c. Duochrome test
 - d. WFDT
8. Light of single wavelength is called:
 - a. Monochromatic
 - b. Heterochromatic
 - c. Chromatic
 - d. None of the above
9. Spherical lens create:
 - a. Focal lines
 - b. Focal points
 - c. Circle of least confusion
 - d. None of the above
10. In a prism:
 - a. Rays are always directed towards the apex
 - b. Image is always directed towards the base
 - c. Image is always directed towards the apex
 - d. None of the above

116
Regn. No. DD.....

Paper Code: BOPT104

**B.OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
BASIC ORTHOPTICS
PAPER - IV**

[Time allotted: Two Hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

A : Short answer questions:

(06 x 10 = 60)

Write short notes on all of the following:

Q. 1. Describe the anatomy of inferior oblique muscle.

Q. 2. Grades of binocular vision.

Q. 3. Monocular clues.

Q. 4. Convergence insufficiency.

Q. 5. Assessment of AC/A ratio.

Q. 6. Describe binocular movements of the eye.

**B.OPTOM.
FIRST YEAR EXAMINATION, SEPTEMBER - 2020
BASIC ORTHOPTICS
PAPER - IV
(MCQ)**

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(01 x 10 = 10)

Select the most appropriate answer and **encircle** the alphabet against it:

1. Orthoptics means:
 - a. Squinting eye
 - b. Ptosis eye
 - c. Heterophoric eye
 - d. Straight eye
2. Stereopsis requires:
 - a. Good visual acuity
 - b. SMP
 - c. Fusion
 - d. All of the above
3. Diplopia is characteristic feature of:
 - a. Paralytic squint
 - b. Non-paralytic squint
 - c. Apparent squint
 - d. None of the above
4. Objective test for assessing binocular motor function:
 - a. Hirschberg corneal reflex test
 - b. Maddox rod test
 - c. Maddox wing test
 - d. Cover test
5. Levodepression involves which of the following pair of yoke muscles:
 - a. Right lateral rectus, left medial rectus
 - b. Left superior rectus, right inferior oblique
 - c. Left inferior rectus, right superior oblique
 - d. Right inferior rectus, left superior oblique
6. Precursor to myopia is:
 - a. Accommodation insufficiency
 - b. Spasm of accommodation
 - c. Accommodation infacility
 - d. Accommodation fatigue
7. Inferior oblique is:
 - a. Abductor
 - b. Elevator
 - c. Extorter
 - d. All of the above
8. When the globe is abducted 39 degree the action of superior oblique is?
 - a. Depression
 - b. Extorsion
 - c. Intorsion
 - d. Elevation
9. Antagonist of superior rectus is:
 - a. Superior oblique and inferior rectus
 - b. Superior oblique medial rectus
 - c. Inferior oblique and inferior rectus
 - d. None of the above
10. In near triad reflex, there is:
 - a. Accommodation relax
 - b. Zonules relax
 - c. Ciliary muscle relax
 - d. All of the above