

Regn. No. DD.....

Paper Code: BOPT201

**B. OPTOM. SECOND YEAR EXAMINATION, AUGUST – 2019**  
**PHARMACOLOGY, PATHOLOGY & MICROBIOLOGY**  
**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)**

**Pathology:**

- Q. 1. Define inflammation. What is the difference between acute and chronic inflammation ?
- Q. 2. Define anemia. Explain megaloblastic anemia.
- Q. 3. Explain the difference between exudate and transudate.

**Microbiology:**

- Q. 4. Classify hyper sensitivity reactions with examples.
- Q. 5. Explain with examples the following:
  - a. Innate immunity
  - b. Artificial immunity
- Q. 6. Write short notes on:
  - a. Blood agar
  - b. ELISA

**Pharmacology:**

Explain the following:

- Q. 7. Management of open angle glaucoma
- Q. 8. Therapeutic uses of atropine
- Q. 9. Topical corticosteroids

**B. OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**PHARMACOLOGY, PATHOLOGY & MICROBIOLOGY**  
**PAPER - I (MCQ)**

**Time allotted for MCQ - 15 minutes**

**(½ x 14 = 07)**

**B : MCQs (Single response type):**

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

**Pathology**

1. Raised TLC is seen in:
  - a. Sepsis
  - b. Leukemia
  - c. Chronic myeloproliferative neoplasm
  - d. All of the above
2. Serum is:
  - a. Rich in fibrinogen
  - b. Poor in fibrinogen
  - c. Produced after anticoagulation
  - d. None of the above
3. Programmed cell death:
  - a. Necrosis
  - b. Apoptosis
  - c. Both of the above
  - d. None of the above
4. Caseating granulomatous inflammation caused:
  - a. Tuberculosis
  - b. Staphylococcus
  - c. Streptococcus
  - d. All of the above
5. Malignant neoplasm is characterized by:
  - a. Metastasis
  - b. Inflammation
  - c. Granuloma
  - d. None of the above
6. Universal donor of blood is:
  - a. A
  - b. B
  - c. AB
  - d. O

**Microbiology**

7. The organ of locomotion of bacteria is:
  - a. Capsule
  - b. Slime
  - c. Flagella
  - d. Fimbriae
8. Blood sample in bed side is inoculated in which media?
  - a. Brain heart infusion broth
  - b. Blood agar
  - c. MacConkey agar
  - d. Chocolate agar

**Pharmacology**

9. Local anaesthetics act by inhibition of:
  - a. Calcium channels
  - b. GABA
  - c. Potassium channels
  - d. Sodium channels
10. The mydriatic having the fastest and shortest action is:
  - a. Atropine
  - b. Homatropine
  - c. Tropicamide
  - d. Cyclopentolate
11. Which of the following drugs acts as an enzyme inhibitor?
  - a. Chlorpromazine
  - b. Furosemide
  - c. Acetazolamide
  - d. Propranolol
12. Which of the following groups of drug act upon ion channels?
  - a. Steroids
  - b. Beta blockers
  - c. Local anaesthetics
  - d. Cardiac glycosides
13. Antibiotic acting via inhibition of cell wall synthesis:
  - a. Aminoglycosides
  - b. Penicillins
  - c. Macrolides
  - d. Tetracyclines
14. Which is the principal organ for the excretion of drugs?
  - a. Liver
  - b. Intestine
  - c. Pancreas
  - d. Kidney

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Paper Code: BOPT202

**B. OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**CLINICAL REFRACTION & CONTACT LENS**  
**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:

- Q. 1. Practice of retinoscopy
- Q. 2. Astigmatic fan
- Q. 3. Anisometropia
- Q. 4. Treatment of astigmatism
- Q. 5. Duochrome test
- Q. 6. Presbyopia
- Q. 7. Disadvantages of soft contact lenses
- Q. 8. RGP Fitting
- Q. 9. Strum's conoid

**B. OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**PHARMACOLOGY, PATHOLOGY & MICROBIOLOGY**  
**PAPER - I (MCQ)**

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**(½ x 14 = 07)**

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Paper Code: BOPT203

**B.OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**OPTOMETRIC INVESTIGATIONS & LOW VISION AIDS**  
**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 short notes on:

✓

- Q. 1. Indirect ophthalmoscopy
- Q. 2. Auto refractometer
- Q. 3. Fundus fluoresceine angiography
- Q. 4. Pachymetry
- Q. 5. Difference between static and dynamic retinoscopy
- Q. 6. Advantages of keratometry.
- Q. 7. Lensometry
- Q. 8. Low vision chart
- Q. 9. Types of blindness

**B.OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019  
OPTOMETRIC INVESTIGATIONS & LOW VISION AIDS  
PAPER - III (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.

1. Treatment of nasolacrimal duct obstruction:
  - a. Syringing
  - b. Probing
  - c. DCR
  - d. All of the above
2. Corneal thickness is measured by:
  - a. Pentacam
  - b. Pachymetry
  - c. Both a & b above
  - d. None of the above
3. In retinoscopy scissor reflex indicates:
  - a. Myopia
  - b. Hypermetropia
  - c. Astigmatism
  - d. All of the above
4. The following may be used as low visual aids:
  - a. Text scanner
  - b. Closed circuit television
  - c. Telescope
  - d. All of the above
5. The direct ophthalmoscope:
  - a. Gives an angular magnification of 15X
  - b. Gives a real erect image
  - c. Makes the disc of a myope appears larger than that of a hypermetrope
  - d. Makes the disc of a hypermetrope larger than that of an emmetrope
6. The keratometer:
  - a. Measures only the central 3 mm of the cornea
  - b. Is more important in fitting soft contact lens than rigid gas permeable contact lens
  - c. Both a & b above
  - d. None of the above
7. The optical pachymeter (pachometer):
  - a. Can be used to measure the corneal thickness as well as the anterior chamber depth
  - b. Uses images I and II of Purkinje-Sanson's images to measure the corneal thickness
  - c. Is more precise than ultrasound pachymeter
  - d. All of the above
8. The faster acting cycloplegic drug is:
  - a. Atropine
  - b. Tropicamide
  - c. Cyclopentolate
  - d. Homatropine
9. IPD means:
  - a. Inter pathway distance
  - b. Inter pupillary distance
  - c. Inter papillary deviation
  - d. All of the above
10. All of the following are true about AR **except**:
  - a. Quick procedure
  - b. Gives information about spherical and cylindrical lens
  - c. Subjective verification of refraction is not required
  - d. All of the above
11. Best diagnostic test for best disease is:
  - a. Dark adaptometry
  - b. ERG
  - c. EOG
  - d. Gonioscopy
12. ....is also called skiascopy
  - a. Ophthalmoscopy
  - b. Funduscopy
  - c. Keratometry
  - d. Retinoscopy
13. Radial keratotomy corrects myopia by causing:
  - a. Steepening of cornea
  - b. Flattening of cornea
  - c. Shortening of cornea
  - d. Pin-hole effect
14. OCT is used in:
  - a. Macula
  - b. Lens
  - c. Refractive error
  - d. Intraocular tumors

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Paper Code: BOPT204

**B.OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**CLINICAL 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:**

- Q. 1.** Hess screen
- Q. 2.** Cover test
- Q. 3.** Corneal reflex test
- Q. 4.** Synaptophore
- Q. 5.** Static retinoscopy
- Q. 6.** After image test
- Q. 7.** WFDT
- Q. 8.** Heterophoria
- Q. 9.** Maddox rod test

**B.OPTOM. SECOND YEAR EXAMINATION, AUGUST - 2019**  
**CLINICAL ORTHOPTICS**  
**PAPER - IV (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. Amblyopia should be corrected by the age of:
  - a. < 8 years of age
  - b. 8 - 18 years
  - c. 18 - 28 years
  - d. Any age
2. Components of binocular single vision do **not** include:
  - a. Fixation
  - b. Fusion
  - c. SMP
  - d. Streopsis
3. Microtropia is degree of deviation:
  - a. 1 - 5
  - b. 5 - 12
  - c. >12
  - d. 15
4. Laevoversion is ..... movement.
  - a. Disjugate
  - b. Conjugate
  - c. Vergence
  - d. None of the above
5. Lang test is done for:
  - a. Amplyopia
  - b. Suppression
  - c. Stereopsis
  - d. Diplopia
6. Nerve supplying lateral rectus muscle:
  - a. Oculomotor
  - b. Trochlear
  - c. Abducent
  - d. Trigeminal
7. Treatment of concomitant squint is:
  - a. Surgery
  - b. Exercises
  - c. Spectacles
  - d. All of the above
8. The angle between the visual axis and pupillary axis is:
  - a. Angle alpha
  - b. Angle kappa
  - c. Angle of anomaly
  - d. None of the above
9. Extraocular muscle arising from the orbital floor is:
  - a. Superior rectus
  - b. Inferior rectus
  - c. Lateral rectus
  - d. Superior oblique
10. Which muscle makes an angle of 23° with optical axis?
  - a. Superior rectus
  - b. Superior oblique
  - c. Medial rectus
  - d. Lateral rectus
11. Secondary deviation is based on following law:
  - a. Hering's
  - b. Listing's
  - c. Donder's
  - d. Sherrington's
12. Synaptophore is used to measure:
  - a. IOP
  - b. Corneal thickness
  - c. Squint
  - d. All of the above
13. What are fixating movements?
  - a. Sacaades
  - b. Pursuit
  - c. Flicks drifts
  - d. None of the above
14. Stimulation for accommodation:
  - a. Chromatic aberration
  - b. Decreased distance visual acuity
  - c. Colorful target
  - d. None of the above

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**PHARMACOLOGY, PATHOLOGY & MICROBIOLOGY**  
**PAPER - I**

[Time allotted: Two hours]

[Max Marks: 70]

**Note:** Attempt all questions  
Draw suitable diagram wherever necessary

(06 x 10 = 60)

**A : Short answer questions:**

**Pathology:**

- Q. 1. What is megaloblastic anemia? How will you investigate this condition?
- Q. 2. Classify various types of bleeding disorders. Discuss prothrombin time.

**Microbiology:**

- Q. 3. Write short notes of:
- a. Bacterial morphology
  - b. Types of immunity
- Q. 4. Write short notes on:
- a. Culture media
  - b. Laboratory diagnosis of tuberculosis

**Pharmacology:**

- Q. 5. Write the mechanism of action, therapeutic uses and adverse effects of corticosteroids.
- Q. 6. Classify NSAIDs. Discuss in brief the NSAIDs used in ophthalmology.

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**PHARMACOLOGY, PATHOLOGY & MICROBIOLOGY**  
**PAPER - I**  
**(MCQs)**

**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

**Pathology**

1. Universal blood group recipient of blood is:
  - a. A
  - b. B
  - c. AB
  - d. O
2. The type of necrosis seen in brain is:
  - a. Coagulative
  - b. Liquefactive
  - c. Caseous
  - d. Fibrinous
3. Blood donors are screened for:
  - a. Dengue
  - b. Hepatitis A
  - c. Hepatitis C
  - d. Typhoid
4. Most common leukemia seen with massive splenomegaly is:
  - a. AML
  - b. ALL
  - c. CML
  - d. CLL

**Microbiology**

5. Who is called Father of microbiology?
  - a. Robert Koch
  - b. Louis Pasteur
  - c. Joseph Lister
  - d. Edward Jenner
6. Elek's gel precipitation is helpful in laboratory diagnosis of:
  - a. *Corynebacterium diphtheriae*
  - b. *Clostridium perfringens*
  - c. *Clostridium tetani*
  - d. *Pseudomonas aeruginosa*

**Pharmacology**

7. Which of the following is a mydriatic?
  - a. Pilocarpine
  - b. Physostigmine
  - c. Phenylephrine
  - d. Phentolamine
8. Which of the following is an antihelminthic drug?
  - a. Amphoterecin B
  - b. Acyclovir
  - c. Amantadine
  - d. Albendazole
9. Drug contraindicated in narrow angle glaucoma is:
  - a. Atropine
  - b. Timolol
  - c. Pilocarpine
  - d. Physostigmine
10. Maximum bioavailability is with:
  - a. Oral route
  - b. Subcutaneous route
  - c. Intravenous route
  - d. Intramuscular route

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Paper Code: BOPT202

**B. OPTOM.  
SECOND YEAR EXAMINATION, AUGUST - 2020  
CLINICAL REFRACTION & CONTACT LENS  
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 short notes on all of the following:**

- Q. 1. Methods of refinement of refraction
- Q. 2. Side effects of aphakic glasses
- Q. 3. Anisoconia
- Q. 4. presbyopia
- Q. 5. Keratometry
- Q. 6. Keratoconus

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**CLINICAL REFRACTION & CONTACT LENS**  
**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. Munson's sign is seen in:
  - a. Pseudophakia
  - b. Aphakia
  - c. Keratoconus
  - d. Myopia
2. Tear film is made of:
  - a. Four layers
  - b. Two layers
  - c. Five layers
  - d. One layer
3. Piggy bag lens refers to:
  - a. RGP over soft contact lens
  - b. Soft contact lens over soft contact lens
  - c. RGP contact lens
  - d. None of the above
4. Retinoscopy reflex is seen in RD patient is:
  - a. Bright
  - b. Faint
  - c. Sharp
  - d. None of the above
5. Contact lens can lead to:
  - a. Dry eye
  - b. Diplopia
  - c. Keratitis
  - d. All of the above
6. Myopia can be corrected by:
  - a. Convex lens
  - b. Concave lens
  - c. Cylindrical lens
  - d. None of the above
7. Lacquer cracks are seen in:
  - a. Presbyopia
  - b. Iritis
  - c. Pathological myopia
  - d. None of the above
8. The relative brightness of pupil is compared in the:
  - a. Bruckner test
  - b. Krimsky test
  - c. Hirschberg test
  - d. Cover test
9. Earliest indicator of keratoconus is:
  - a. Retinal topography
  - b. Choroidal topography
  - c. Corneal topography
  - d. None of the above
10. Near visual acuity is tested by:
  - a. Snellen's chart
  - b. Jaeger's chart
  - c. Cambridge chart
  - d. Key chart

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Paper Code: BOPT203

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**OPTOMETRIC INVESTIGATIONS & LOW VISION AIDS**  
**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 short notes on all of the following:

**Q. 1.** Retinoscopy

**Q. 2.** Ophthalmoscopy

**Q. 3.** Duochrome test

**Q. 4.** Low vision

**Q. 5.** Specular microscopy

**Q. 6.** Fundus Fluorescein Angiography

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**OPTOMETRIC INVESTIGATIONS & LOW VISION AIDS**  
**PAPER - III**  
**(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. Ishihara is a screening test for:
  - a. Protanopia & deutrenopia
  - b. Tritanopia & proatanopia
  - c. Deuternopia & triatanopia
  - d. All of the above
2. Fluorescein pattern is seen with the aid of:
  - a. Cobalt blue filter
  - b. Wartman filter 41
  - c. Neutral density filter
  - d. None of the above
3. Pachymetry is done for:
  - a. Lid
  - b. Cornea
  - c. Lens
  - d. Retina
4. Amsler grid comprises of:
  - a. Five chart
  - b. Seven charts
  - c. Two chart
  - d. Four charts
5. SWAP stands for:
  - a. Short wavelength auto-perimetry
  - b. Short wavelength automated perimetry
  - c. Shortage waves automatic perimetry
  - d. None of the above
6. Trial frame should have:
  - a. Adjustable IPD
  - b. 4 lens compartments
  - c. Adjustable tilt
  - d. All of the above
7. The direct ophthalmoscope is used to examine:
  - a. Cornea
  - b. Lens
  - c. Retina
  - d. Lids
8. B-scan is used for:
  - a. Anterior segment
  - b. Posterior segment
  - c. Both of the above
  - d. None of the above
9. In low vision distance visual acuity is tested in:
  - a. Snellen chart
  - b. Bailey Lovie chart
  - c. Both a and b
  - d. None of the above
10. Specular microscopy used for:
  - a. Endothelial cell count
  - b. Central corneal thickness
  - c. Both of the above
  - d. None of the above

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**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**CLINICAL 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.** AC/A ratio
- Q. 2.** FDT
- Q. 3.** Corneal reflex test
- Q. 4.** AV phenomena
- Q. 5.** Red glass test
- Q. 6.** Latent squint

**B. OPTOM.**  
**SECOND YEAR EXAMINATION, AUGUST - 2020**  
**CLINICAL 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. Titmus fly test is done for:
  - a. Amplyopia
  - b. Suppression
  - c. Stereopsis
  - d. Diplopia
2. Uncrossed diplopia is seen in:
  - a. Esodeviation
  - b. Exodeviation
  - c. Hyperdeviation
  - d. Hypodeviation
3. Test to rule out microtropia is:
  - a. WFDT
  - b. After image
  - c. 4 prism base out test
  - d. Bagolini glass test
4. Assessment of angle of squint can be done by:
  - a. FDT
  - b. Cycloplegic refraction
  - c. Krimsky test
  - d. None of the above
5. Methods of estimating the visual acuity in infants are all **except**:
  - a. Optokinetic nystagmus
  - b. CSM method
  - c. VEP
  - d. Snellen test type
6. Latent squint is also known as:
  - a. Heterotropia
  - b. Heterophoria
  - c. Both of the above
  - d. None of the above
7. Esotropia will increase in upgaze and decrease in downgaze in:
  - a. A- esotropia
  - b. V esotropia
  - c. A exotropia
  - d. V exotropia
8. In WFDT, if the patient sees all four light with manifest squint, he has:
  - a. ARC
  - b. Diplopia
  - c. Suppression
  - d. None of the above
9. Vertical strabismus are all **except**:
  - a. Hypertropia
  - b. Hypotropia
  - c. Exotropia
  - d. Dissociated vertical deviation
10. Assessment of ocular alignment is done by:
  - a. Cover test
  - b. Light reflex test
  - c. Both a and b
  - d. None of the above