

August 2011

[KZ 0811]

Sub. Code: 6026

BACHELOR OF OPTOMETRY DEGREE EXAMINATION.

SECOND YEAR

Paper V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code : 806026

Time : Three hours

Maximum : 100 marks

Answer **ALL** Questions

Draw diagrams wherever necessary

I. Essays:

(3 x 10 = 30)

1. Anatomy of Bacterial cell.
2. Write in brief about the morphology and clinical features of uveal melanoma.
3. Discuss briefly the natural resistance of the host to micro organisms.

II. Short Notes :

(8 x 5 = 40)

1. Catalase test.
2. Selective media.
3. Filtration.
4. Beta lactam agents.
5. Trachoma.
6. Acanthomeba.
7. Plasmids.
8. Mycotic keratitis.

III. Short Answers :

(10 x 3 = 30)

1. Capsule demonstration.
2. Agglutination reaction.
3. ELISA.
4. Incubation period.
5. Intermediate host.
6. Negli bodies.
7. Enumerate enveloped viruses.
8. Universal precautions.
9. Koh mount.
10. Diphtheroids.

[LB 0212]

AUGUST 2012

Sub. Code: 6026

B.Sc. OPTOMETRY

SECOND YEAR

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code : 806026

Time : Three hours

Maximum : 100 marks

(180 Mins) Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|--|---|----|----|
| 1. Define sterilization. Describe in detail the different methods of moist heat sterilization. | 7 | 20 | 10 |
| 2. Classify Hypersensitivity. Write in detail about Type - I Hypersensitivity. | 7 | 20 | 10 |
| 3. List the fungi causing infections in the eye. Discuss the laboratory diagnosis of fungal infections of the eye. | 7 | 20 | 10 |

II. Write notes on:

- | | | | |
|---|---|----|---|
| 1. Antibiotic susceptibility testing. | 4 | 10 | 5 |
| 2. Free living Amoeba. | 4 | 10 | 5 |
| 3. TRIC Agents. | 4 | 10 | 5 |
| 4. Anaerobic culture methods. | 4 | 10 | 5 |
| 5. Opportunistic viral infections of the eye. | 4 | 10 | 5 |
| 6. ELISA. | 4 | 10 | 5 |
| 7. Gram's stain. | 4 | 10 | 5 |
| 8. Dark ground microscopy. | 4 | 10 | 5 |

III. Short answers on:

- | | | | |
|--|---|---|---|
| 1. Name four different Immunoglobulins. | 2 | 4 | 3 |
| 2. Name two gram positive cocci. | 2 | 4 | 3 |
| 3. Name two appendages of Bacteria. | 2 | 4 | 3 |
| 4. Name two Acid fast Bacteria. | 2 | 4 | 3 |
| 5. Name two nematodes that can affect the eye. | 2 | 4 | 3 |
| 6. Name two methods of Dry heat sterilization. | 2 | 4 | 3 |
| 7. Name two enriched media. | 2 | 4 | 3 |
| 8. Define Nasocomial infection. | 2 | 4 | 3 |
| 9. Name two motile Bacteria. | 2 | 4 | 3 |
| 10. Name two chemical disinfectants. | 2 | 4 | 3 |

[LC 0212]

FEBRUARY 2013
B.Sc. OPTOMETRY
SECOND YEAR

Sub. Code: 6026

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time : Three hours

Maximum : 100 marks

I. Elaborate on:

(3x10=30)

1. Name the various ocular tumours. Elaborate on uveal melanoma.
2. Discuss the etiology and pathogenesis of Endophthalmitis.
3. Write on different types of cataract.

II. Write notes on:

(8x5=30)

1. Tabulate the differences between active and passive immunity
2. Discuss the etiology and pathogenesis of retinal detachment.
3. Papilloedema and its pathogenesis.
4. Discuss the features of Hypertensive retinopathy.
5. Describe the morphology of bacteria and draw a labeled diagram.
6. Mycotic keratitis
7. Explain Gram staining and its applications.
8. Define Disinfection. Write a note on various disinfectants.

III. Short answers on:

(10x3=30)

1. Clinical features of pterygium
2. Inflammatory lesions of eye lid
3. Types of glaucoma
4. Immunity
5. What is a transport medium? Give three examples
6. Acanthameba
7. Define incubation period
8. Collection and transport of corneal scrapings
9. Common causes of blindness
10. Iridocyclitis

[LD 0212]

AUGUST 2013
B.SC. OPTOMETRY
SECOND YEAR
PAPER V – PATHOLOGY AND MICROBIOLOGY

Sub.Code :6026

Q.P. Code: 806026

Time: Three hours

Maximum : 100 marks

Answer ALL questions.

I Elaborate on:

(3 x 10 =30)

1. Discuss in detail about the different types of cataracts and their pathology.
2. List the viral infections of the eye. Discuss in detail about viral keratitis.
3. Explain the different stages of wound healing.

II. Short Notes on :

(8 x 5 = 40)

1. What is retinal detachment? Explain its causes and pathology.
2. Explain dry heat Sterilization
3. Tumors of the eye
4. Mycotic keratitis
5. Antibiotic sensitivity testing
6. Culture methods.
7. Classify the different types of bacteria
8. Agglutination reaction

III. Short Answers on:

(10 x 3 = 30)

1. What is enriched media? Give examples.
2. List three chemical disinfectants.
3. What is meant by acid fast bacteria? Explain with examples.
4. Collection and transportation of corneal scrapings
5. What is gram staining?
6. Active immunity
7. Universal precautions.
8. Name three parasitic infections of the eye
9. Histopathology of Retinoblastoma
10. Structure of bacteria

[LE 0212]

FEBRUARY 2014
B.SC. OPTOMETRY
SECOND YEAR

Sub.Code :6026

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time: Three hours

Maximum : 100 marks

Answer ALL questions.

I Elaborate on:

(3 x 10 =30)

1. Draw a diagram of a Bacterial cell and discuss its morphology.
2. Explain about the natural resistance of the host to micro organisms
3. Mechanism of inflammation and repair in the eye.

II. Write short notes on:

(8X5 =40)

1. Explain briefly about active and passive immunity
2. Causes and Pathology of papilloedema
3. Explain the different types of sterilization
4. Pathology of uveal melanoma
5. Intraocular tumors
6. Pathology of the lens in cataract
7. Fungal keratitis
8. Anaerobic culture methods.

III. Short answers on:

(10X3 =30)

1. Universal precautions
2. Disinfection
3. What are Immunoglobulins?
4. List nematodes that affect the eye
5. Agglutination reaction
6. Incubation period.
7. Types of culture media
8. Mycobacterium leprae
9. Gram staining
10. Bleeding time

[LF 0212]

AUGUST 2014

Sub.Code :6026

**B.Sc. OPTOMETRY
SECOND YEAR
PAPER V – PATHOLOGY AND MICROBIOLOGY**

Q.P. Code: 806026

Time: Three Hours

Maximum : 100 marks

Answer All Questions.

Draw diagrams wherever necessary

I. Elaborate on:

(3 x 10 = 30)

1. Define wound healing and outline the stages in wound healing.
2. Retinoblastoma – explain the clinical condition, pathological features and differential diagnosis.
3. Physical and chemical agents used in sterilization and explain in detail about heat sterilization.

II. Short Notes:

(8 x 5 = 40)

1. Sympathetic ophthalmia.
2. Thyroid eye disease
3. Chalazion
4. Corneal dystrophy
5. Phthisis bulbi
6. Acquired immunity
7. Differences between exotoxins and endotoxins
8. Bacterial spores

III. Short Answers:

(10 x 3 = 30)

1. Define pancytopenia.
2. Define Type – I Hypersensitivity.
3. Types of shock.
4. Give two examples for granulomatous inflammation.
5. Define infarction and mention types of infarction.
6. Pathways of spread of cancers.
7. Define thrombocytopenia.
8. Gram stain.
9. Define sterilization.
10. Mention few eyelid tumours.

[LG 0215]

FEBRUARY 2015

Sub.Code: 6026

**B.Sc. OPTOMETRY
SECOND YEAR**

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time: Three Hours

Maximum : 100 Marks

Answer All Questions.

Draw diagrams wherever necessary

I. Elaborate on:

(3 x 10 = 30)

1. Chronic inflammation – Explain the vascular and cellular events involved in chronic inflammation.
2. Tuberculosis infection and ocular involvement in tuberculosis.
3. Bacterial cell wall.

II. Write notes on:

(8 x 5 = 40)

1. Orbital cellulitis.
2. Choroidal melanoma.
3. Ocular features of leprosy.
4. Atrophic bulbi.
5. Thyroid eye disease.
6. Staining techniques in bacteriology.
7. Flagella.
8. Fungal keratitis.

III. Short answers on:

(10 x 3 = 30)

1. Define Anaemia.
2. Choristoma.
3. Mention few special staining techniques in ophthalmic pathology.
4. Conjunctival Pterygium.
5. Define polycythemia.
6. Define fibrosis.
7. What is an abscess?
8. Mention few types of microscopes.
9. Define delayed hypersensitivity reaction.
10. Compare active and passive immunity.

[LH 0815]

AUGUST 2015

Sub. Code: 6026

B.Sc. OPTOMETRY

SECOND YEAR

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time : Three Hours

Maximum : 100 marks

**Answer ALL questions
Draw diagrams wherever necessary**

I. Elaborate on:

(3 x 10 = 30)

1. What is Sterilization? Enumerate different methods of Sterilization. Describe in detail about Autoclave.
2. Describe in detail the Morphology and Clinical features of Uveal Melanoma.
3. Discuss in detail about Acquired Immunity.

II. Write notes on:

(8 x 5 = 40)

1. Significance of Cell Wall Lipopoly Saccharide in GNB.
2. Complications of untreated Herpes Eye Infections.
3. Brief about Catalase Test.
4. Describe about Selective Media with examples.
5. Write short on Corneal Dystrophy.
6. Discuss on Fungal Keratitis.
7. Causes and complications of Retinal Detachment.
8. Brief on ELISA.

III. Short Answers on:

(10 x 3 = 30)

1. What is Anti body Resistance?
2. What are Negli bodies?
3. Short Notes on Agglutination reaction.
4. Define Incubation period.
5. Types of Glaucoma.
6. Collection and Transport of Corneal Scrapping.
7. Name two Nematodes of Eye.
8. Name two Enriched Media.
9. What is Pterygium?
10. Define Nosocomial Infection.

[LI 0216]

FEBRUARY 2016

Sub.Code: 6026

B.Sc. OPTOMETRY

SECOND YEAR

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time: Three Hours

Maximum : 100 Marks

Answer All Questions.

Draw diagrams wherever necessary

I. Elaborate on:

(3 x 10 = 30)

1. Describe the Structure, classes and the functions of Immunoglobulins.
2. Describe in details the Bacterial Cell.
3. Discuss on Etiology and Pathogenesis of Endophthalmitis.

II. Write notes on:

(8 x 5 = 40)

1. Describe the Anaerobic culture methods.
2. What accounts for the rigidity and strength of bacterial cell wall?
3. What are Herpes Viruses?
4. Explain Mycotic Keratitis.
5. Write note on Acanthamoeba.
6. Brief on Chalazion.
7. Elaborate on the Pathology of Lens in Cataract.
8. Enumerate and discuss on Intra ocular tumours.

III. Short answers on:

(10 x 3 = 30)

1. What is Disinfection?
2. What is ELISA?
3. Note on Universal Lab Precautions.
4. Define Intermediate Host.
5. What is Transparent Medium? Give two examples.
6. What are the common causes of Blindness?
7. Write the types of Microscopes.
8. What is Thrombocytopenia?
9. Define Incubation period.
10. Name the TORCH Agents.

[LJ 0816]

AUGUST 2016

Sub.Code: 6026

**B.Sc. OPTOMETRY
SECOND YEAR**

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time: Three Hours

Maximum : 100 Marks

Answer All Questions.

Draw diagrams wherever necessary

I. Elaborate on:

(3 x 10 = 30)

1. Classify Hypersensitivity. Write in detail about **Type -I** Hypersensitivity.
2. Define Sterilization. Describe in detail about the different methods of Moist heat sterilization.
3. Explain the Pathogenesis of Viral Eye Pathogens

II. Write notes on:

(8 x 5 = 40)

1. Fungal Keratitis.
2. Corneal Dystrophy.
3. Brief about Catalase Test.
4. Herpes Viruses.
5. Chalazions.
6. Selective media with examples.
7. Thyroid eye disease.
8. Glaucoma.

III. Short answers on:

(10 x 3 = 30)

1. Define Aneamia.
2. Conjunctival Pterygium.
3. Two examples for Granulomatous Inflammation.
4. Mention few eyelid tumours.
5. Gram Staining.
6. Incubation period.
7. List of Nematodes that affect the eye.
8. Collection and transport of Corneal scrapings.
9. Name two methods of Dry heat Sterilization.
10. Intermediate Host.

[LK 0217]

FEBRUARY 2017

Sub.Code: 6026

**B.Sc. OPTOMETRY
SECOND YEAR**

PAPER V – PATHOLOGY AND MICROBIOLOGY

Q.P. Code: 806026

Time: Three Hours

Maximum : 100 Marks

Answer All Questions.

Draw diagrams wherever necessary

I. Elaborate on:

(3 x 10 = 30)

1. Morphology of Bacterial Cell with diagram.
2. Name the various Ocular Tumours and elaborate on Uveal Melanomas.
3. Mechanism of Inflammation and repair in the eye.

II. Write notes on:

(8 x 5 = 40)

1. Filtration.
2. Trachoma.
3. Free living Amoeba.
4. Dark ground Microscopy.
5. Papilloedema and its etiopathogenesis.
6. Vitamin 'A' deficiency.
7. Acquired Immunity.
8. Atrophic Bulbi.

III. Short answers on:

(10 x 3 = 30)

1. Define Polycythemia.
2. Mention few special staining in Ophthalmic Pathology.
3. Agglutination Reaction.
4. Define Nosocomical Infections.
5. Common causes of Blindness.
6. Name the TORCH Agents.
7. Types of Shock.
8. Universal Precautions.
9. Pthisis bulbi.
10. Define:
 - a) Dysplasia
 - b) Metaplasia
