

B.OPTOM
(New Syllabus 2015-2016)

SECOND YEAR

PAPER IV – PATHOLOGY, MICROBIOLOGY AND PHARMACOLOGY

Q.P. Code: 802714

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Write about the methods used for identification of bacteria.
2. What are the types of inflammation? Write about morphologic features of inflammation. What are the pathologic features seen in endophthalmitis?
3. Give an account of drugs affecting autonomic nervous system. What are the pharmacological actions of adrenaline.

II. Write notes on:

(8 x 5 = 40)

1. Types of anemia. Write a note on Iron deficiency anemia.
2. Neoplasms of the eyelid.
3. Antiviral drugs.
4. Methods of disinfection.
5. Universal precautions.
6. Adverse drug reactions.
7. Uveal melanomas.
8. Viral infections of the eye.

III. Short answers on:

(10 x 3 = 30)

1. Define sterilization.
2. Name a few tear substitutes. What is their use?
3. Pinguecula.
4. List three causes of uveitis.
5. What is a transport media?
6. Give examples of granulomatous inflammation.
7. Anticancer drugs used for ophthalmic tumours.
8. Pathological features of retinoblastoma.
9. What are cycloplegics? Name two.
10. List the parasites which affect the eye.

[LN 0818]

AUGUST 2018

Sub. Code: 2714

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Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe a bacterial cell in detail with the help of diagram.
2. Name the ocular tumours and describe the pathology of one of the tumours in detail.
3. Describe in detail the stages of general anaesthesia.

II. Write notes on:

(8 x 5 = 40)

1. Non steroidal anti-inflammatory drugs.
2. Thrombocytopenia.
3. Nosocomial infection.
4. Local anesthesia.
5. Antidiabetic drugs.
6. Gram stain.
7. Types of inflammation.
8. Pathology of cataract.

III. Short answers on:

(10 x 3 = 30)

1. Name three antifungals.
2. List three drugs which cause ocular toxicity?
3. Give three causes of thrombocytopenia.
4. Three causes of infections of the eye.
5. Immunoglobulins.
6. Acid fast bacteria.
7. Types of disinfectants.
8. Give examples of transport media.
9. Name three drugs used in ophthalmic surgery.
10. List three types of microscopes.

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Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Inflammatory conditions of the eye.
2. Define absorption. Explain the factors affecting drug absorption.
3. Write in detail about the tumours in eye.

II. Write notes on:

(8 x 5 = 40)

1. Brief on ELISA.
2. Explain dry heat sterilization.
3. Methanol poisoning.
4. Explain Gram staining and its application.
5. Fentanyl.
6. The cells seen in a normal blood smear.
7. Iron deficiency anemia.
8. Air embolism.

III. Short answers on:

(10 x 3 = 30)

1. Pterygium.
2. Name two enriched media.
3. What is gangrene?
4. What are anti-coagulants? Give two examples.
5. KOH mount.
6. Capsule demonstration.
7. Mention the therapeutic uses of Vitamin E.
8. Define Leukaemia.
9. Enumerate the toxicity of aminoglycoside antibiotics.
10. Define immunity.

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Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. What are antibiotics? Classify β -lactum antibiotics and write its mechanism.
2. Describe in detail Moist heat sterilization.
3. Describe in detail about different techniques of giving local anaesthetics in the eye.

II. Write notes on:

(8 x 5 = 40)

1. Adverse drug effects with examples.
2. Describe the growth requirements of bacteria.
3. Mechanism of action of Biguanides.
4. Retinoblastoma.
5. Describe the morphology of bacteria with a neat labeled diagram.
6. Pathogenesis of retinal detachment.
7. Inhalational Anesthetics.
8. Iron deficiency anaemia.

III. Short answers on:

(10 x 3 = 30)

1. Eye lesions of leprosy.
2. Blood agar.
3. Pterygium.
4. Immunity.
5. Flagella.
6. Analeptics.
7. Biotransformation with example.
8. Polycythemia.
9. What are anti-coagulants? Give two examples.
10. Drugs used for treating leprosy.

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SECOND YEAR

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Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Classify hypersensitivity. Write in detail about Type-I hypersensitivity.
2. What are the types of culture media? How do you prepare culture media and what are its uses?
3. What are oral hypoglycemic drugs? Classify them. Write a note on insulin.

II. Write notes on:

(8 x 5 = 40)

1. Corticosteroids.
2. Acanthamoeba infections of the eye.
3. Acute inflammation of conjunctiva.
4. Distinguish between antiseptics and disinfectants.
5. Ophthalmic wound healing.
6. Chronic lesions of eye.
7. Discuss about penicillin.
8. Bacterial growth curve.

III. Short answers on:

(10 x 3 = 30)

1. Enumerate enveloped viruses.
2. Two examples of RNA viruses.
3. Define Leukaemia.
4. Plasmacokinetics.
5. Mention the uses of adrenaline.
6. Negri bodies.
7. Eye lesions of leprosy.
8. Mention the drugs used in glaucoma.
9. Keratitis.
10. Mention the uses of mannitol.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321]

**MARCH 2021
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 2714

B.OPTOM

SECOND YEAR (Regulation 2015-2016)

PAPER IV – PATHOLOGY, MICROBIOLOGY AND PHARMACOLOGY

Q.P. Code : 802714

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Define cataract. What are the types of cataract and its pathogenesis? Name the drugs used in cataract surgery.
2. What is the normal morphology of a bacterial cell? Name the bacterial infections of the eye and write about antibacterial agents.
3. Name the diuretic drugs and anti diuretic drugs. Role of diuretic drugs for ophthalmic use.

II. Write notes on:

(8 x 5 = 40)

1. Sympathomimetic.
2. Sedative and hypnotics.
3. River blindness.
4. Fungal keratitis.
5. Name the causative organism for syphilis and what is congenital syphilis?
6. Choroidal melanoma.
7. Retinal detachment.
8. What is granuloma? Name the granulomatous infection of the eye.

III. Short answers on:

(10 x 3 = 30)

1. Wetting agents.
2. Tear substitutes.
3. What is Pharmacokinetics?
4. Corticosteroids.
5. Dry heat sterilization.
6. Name 3 anticoagulants.
7. Orbital cellulitis.
8. Cardinal signs of inflammation.
9. Papilledema.
10. Macrocytic anemia.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0222]

**FEBRUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 2714

**B.OPTOM
SECOND YEAR (Regulation 2015-2016)
PAPER IV – PATHOLOGY, MICROBIOLOGY AND PHARMACOLOGY
Q.P. Code : 802714**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Name the causative organism for tuberculosis. What are the diagnostic methods? Write about antitubercular drugs.
2. What are the types of culture media? How do you prepare culture media and what are its uses?
3. What are oral hypoglycemic drugs? Classify them. Write a note on insulin.

II. Write notes on: (8 x 5 = 40)

1. Antifungal drugs.
2. Immunosuppressants.
3. Distinguish between antiseptics and disinfectants.
4. Acanthamoeba infections of the eye.
5. Culture and sensitivity.
6. Retinoblastoma.
7. Mediators of inflammation.
8. Ophthalmic wound healing.

III. Short answers on: (10 x 3 = 30)

1. Dapsone.
2. Placebo.
3. H₂ Antihistamines.
4. Biotransformation.
5. Moist heat sterilization.
6. Neutrophilia.
7. Optic neuritis.
8. Chlamydial conjunctivitis.
9. Pasteurisation.
10. Disinfection.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 2714

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

B.OPTOM

SECOND YEAR (Regulation from 2015-2016)

PAPER IV – PATHOLOGY, MICROBIOLOGY AND PHARMACOLOGY

Q.P. Code : 802714

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Classify Corticosteroids. Describe the pharmacological effects of Glucocorticoids.
2. Write in detail about morphology and clinical features of Uveal melanoma.
3. Enumerate the fungi causing infections in the eye. Describe the laboratory diagnosis of fungal infections of the eye.

II. Write notes on:

(8 x 5 = 40)

1. Factors modifying the drug action.
2. Write a note on Anaesthetics used on Ophthalmic procedures.
3. Enumerate Antihypertensives with examples.
4. Ocular anti-inflammatory drugs.
5. Brief note on Orbital cellulitis.
6. Osmotic pump.
7. Cataract test.
8. Opportunistic viral infections of the eye.

III. Short answers on:

(10 x 3 = 30)

1. Methanol poisoning.
2. Explain the mechanism of action of protease inhibitors and give four examples.
3. Mention the uses of Aspirin.
4. Drugs causing ocular toxicity.
5. Define Antiseptic and Disinfectant with examples.
6. Nosocomial infection.
7. Gliomas.
8. What are the common causes of blindness?
9. Universal precautions.
10. Difference between Dysplasia and Metaplasia.
