

NOVEMBER 2001

[KE 210]

Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch III — Ophthalmology

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

(ANATOMY)

1. (a) Give the blood supply to visual pathway.
- (b) Give the microscopic structure of the Retina.
- (c) Write in detail about the sinus venosus selerae.
- (d) Give the relations of the lacrimal sac with applied importance.
- (e) Write about the ciliary body.

(PHYSIOLOGY)

2. (a) Colour constancy.
- (b) Purkinji shift.
- (c) Pathway of Accommodation reflex.
- (d) Critical fusion frequency.
- (e) Wald's visual cycle.

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(BIOCHEMISTRY)

3. (a) Galactosemia.
(b) Metabolic disorders of Tyrosine.
(c) Congenital cataract.
(d) Albinism.
(e) Hypercholesterolemia.

(PATHOLOGY)

4. (a) Intra ocular lens implant.
(b) Eosinophilic cystadenoma.
(c) Corneal dystrophy.
(d) Ephelis.
(e) Exudative retinopathy.

(PHARMACOLOGY)

5. (a) Bacterial drug resistance.
(b) Antihistaminic agents useful in ophthalmology.
(c) Idoxuridine.
(d) Role of corticosteroids in ophthalmology.
(e) Preanaesthetic medications.

(MICROBIOLOGY)

6. (a) PCR.
(b) Mechanism of innate immunity.
(c) Epidemic kerato conjunctivitis.
(d) Fusarium.
(e) Diagnosis of HIV infection.

[KG 210] MARCH 2002 Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch III — Ophthalmology

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours

Maximum : 180 marks

Answer each subject in a separate Answer Book.

Answer any FOUR short notes in each subject.

Answer ALL questions

(ANATOMY)

- (a) Describe the accommodation reflex giving the receptors, neurons, centre and nuclei concerned with it.
- (b) Give the sensory nerves of both upper and lower eyelids.
- (c) Give the boundaries, parts and structures passing through the superior orbital fissure.
- (d) Give the attachments, nerve supply and functions of the various parts of the orbicularis oculi.
- (e) Give the relations of the nasolacrimal duct. How does it develop?

MARCH 2002

(PHYSIOLOGY)

2. (a) Theories of colour vision.
(b) Retinal image.
(c) Snellen's chart.
(d) Functions of choroid.
(e) Role of corresponding points in visual perception.

(BIOCHEMISTRY)

3. (a) Mitochondrial inheritance.
(b) Regulation of blood glucose level.
(c) Homocystinuria.
(d) HMP – shunt – significance.
(e) Thiamine deficiency.

(PATHOLOGY)

4. (a) Phakolytic glaucoma.
(b) Herpetic keratitis.
(c) Tumours of lacrimal gland.
(d) Suppurative endophthalmitis.
(e) Retinoblastoma.

(PHARMACOLOGY)

5. (a) ACE (Angiotensin converting enzyme) inhibitors.
(b) Local anaesthetics used in ophthalmic procedures.
(c) Vitreous substitutes.
(d) Drugs used in the treatment of glaucoma.
(e) Fluorescein dye.

(MICROBIOLOGY)

6. (a) Antiviral agents.
(b) Dendritic keratitis.
(c) Interferon.
(d) Culture characters of *C. Diphtheriae*.
(e) Candidiasis.

[KI 210] APRIL 2003 Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(All Regulations)

Part I — Branch III — Ophthalmology

Paper I — APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate Answer Book.

Answer any FOUR short notes in each Subject.

All questions carry equal marks.

(ANATOMY)

1. (a) Write in detail about the sclera.
- (b) Extra ocular muscles
- (c) Lacrimal sac
- (d) The functional components of the third cranial nerve
- (e) Give the Nucleus of origin, emergence, course and distribution of the Abducent nerve. What is the effect of lesion of the nerve?

APRIL 2003

(PHYSIOLOGY)

2. (a) Blood Retinal barrier and Blood Aqueous barrier
(b) Regeneration of Rhodospin
(c) Receptor field of a Ganglion cell
(d) Maintenance of Lens Transparency
(e) Visual acuity.

(BIOCHEMISTRY)

3. (a) Connective tissue disorders and the eye
(b) Cystinosis
(c) Free radical damage
(d) Metabolism of Crystalline lens
(e) Congenital cataract.

(PHARMACOLOGY)

4. (a) Corneal penetration of drugs
(b) Topical use of Sulfanomides
(c) Bacterial Resistance
(d) Fluorescein dye
(e) Idoxuridine.

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(PATHOLOGY)

5. (a) Cavernous haemangioma of orbit
(b) Phakomatous choristoma
(c) Dermolipoma of conjunctiva
(d) Malignant melanoma of iris
(e) Keratoconus.

(MICROBIOLOGY)

6. (a) Structure of bacterial cell wall
(b) HSV I
(c) Type III (immune complex) reaction
(d) Acute follicular conjunctivitis
(e) ELISA.

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[KJ 210] OCTOBER 2003 Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(All Regulations)

**Part I — Branch III — Ophthalmology
Paper I — APPLIED BASIC SCIENCES**

**Time : Two hours Maximum : 75 marks
One hour and forty five Theory : 60 marks
minutes for Theory M.C.Q : 15 marks
M.C.Q. : 15 minutes**

M.C.Q. must be answered on a separate answer sheet provided as per the instruction given on the first page of the M.C.Q. Booklet.

Answer each subject in a SEPARATE Answer Book.

Answer any FOUR short notes in each Subject.

All questions carry equal marks.

**SECTION B
(PHARMACOLOGY)**

(4 × 5 = 20)

1. (a) Lignocaine.
- (b) Atropine.
- (c) Pre-anaesthetic medication.

- (d) Sulfonyl ureas.
- (e) Drugs used in Glaucoma.

(PATHOLOGY)

(4 × 5 = 20)

2. (a) Lacrimal gland tumors.
- (b) Melanotic progonoma.
- (c) Fungal lesions of eye.
- (d) Ophthalmic childhood tumors.
- (e) Exophthalmos.

(MICROBIOLOGY)

(4 × 5 = 20)

3. (a) Corynebacterium Xerosis.
- (b) Inclusion Conjunctivitis.
- (c) Cytomegalo virus retinitis.
- (d) Loa Loa.
- (e) IgA.

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Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(All Regulations)

Part I — Branch III — Ophthalmology

Paper I — APPLIED BASIC SCIENCES

Time : Two hours

Maximum : 75 marks

**One hour and forty five
minutes for Theory**

Theory : 60 marks

M.C.Q : 15 marks

M.C.Q. : 15 minutes

**M.C.Q. must be answered on a separate answer sheet
provided as per the instruction given on the first page
of the M.C.Q. Booklet.**

Answer each subject in a SEPARATE Answer Book.

Answer any FOUR short notes in each Subject.

All questions carry equal marks.

SECTION A

(ANATOMY)

(4 × 5 = 20)

- 1 (a) Pretectal Nucleus – Situation and connection.
(1 + 4)**
- (b) Structure of Corneal Epithelium.**

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(c) Lateral Geniculate Body – (Situation, neuronal arrangement and mode of termination of retinal fibres). (1 + 2 + 2)

(d) Ciliary Ganglion – Situation and connection. (1 + 4)

(e) Levator Palpabrum Superioris – (attachment, nerve supply and action). (2 + 1½ + 1½)

(PHYSIOLOGY)

(4 × 5 = 20)

2. (a) Describe the theories of colour vision. How do you test colour vision.

(b) Describe the formation of Aqueous Humour. Describe the outflow of channels of the Aqueous Humour.

(c) Trace the pathway for pupillary light reflex. Mention Argyll–Robertson Pupil.

(d) Electro–Retino Gram (E.R.G.).

(e) Trace the optic pathway and mention the various fields defects due to lesions.

(BIOCHEMISTRY)

(4 × 5 = 20)

3. (a) Wald's visual cycle.
(b) Galactosaemia.
(c) Cataractogenesis.
(d) Ketone bodies.
(e) HDL.
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[KL 210] AUGUST 2004

Sub. Code : 9000

M.S. DEGREE EXAMINATION.

(All Regulations)

Part I — Branch III — Ophthalmology

Paper I — ALLIED CLINICAL SCIENCES

(APPLIED BASIC SCIENCES)

Time : Two hours

Maximum : 75 marks

Theory : One hour and

Theory : 60 marks

forty five minutes

M.C.Q. : Fifteen minutes

M.C.Q. : 15 marks

Answer each subject in a SEPARATE Answer Book.

Answer any FOUR short notes in each Subject.

SECTION A

All questions carry equal marks.

ANATOMY

(4 × 5 = 20)

- (a) Striate cortex
- (b) Course and branches of ophthalmic artery
- (c) Lacrimal gland
- (d) Layers of cornea
- (e) Ciliary ganglion.

PHYSIOLOGY

(4 × 5 = 20)

(a) Electro Physiological changes during dark and light vision

(b) Colour constancy

(c) Retino hypothalamic tract

(d) Purkinje phenomenon

(e) Aqueous humor.

BIOCHEMISTRY

(4 × 5 = 20)

(a) Glutathione

(b) Sorbitol pathway

(c) G-Proteins

(d) Inhibitors of Carbonic anhydrase

(e) Anerobic glycolysis.