

B.Sc. Allied Health Sciences Second Year (Semester-IV)

August – 2016 Examination

B.Sc. Ophthalmic Technology (OPH)

Time: 2.30 Hrs.

Paper – I

[Max. Marks: 80]

Ocular Pathology, Ocular Pharmacy and Pharmacology

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

(Use separate answer booklet for Section A & B)

Section – A

Ocular Pathology (40 Marks)

Q.P Code : AHS-130

LONG ESSAY

1 X 10 = 10 Marks

1. Describe in detail hypertensive retinopathy.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

2. Thrombocytopenia.
3. Acute myeloid leukemia.
4. Write a neat diagram and label normal structure of eye.
5. Cataract.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Phthisis bulbi.
7. Hyperplasia.
8. Proteinuria.
9. What are the factors involved in delayed wound healing.
10. Classical signs of inflammation.
11. Types of necrosis.

Section – B

Ocular Pharmacy & Pharmacology (40 Marks)

Q.P Code : AHS-131

(Use separate answer booklet for Section-B)

LONG ESSAY

1 X 10 = 10 Marks

1. Classify drugs used in the treatment of glaucoma. Explain their mechanism of action and mention their adverse effects.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

2. Explain the different periorbital routes of drug administration with examples.
3. Explain the mechanism of action, ophthalmic uses and adverse effects of diclofenac.
4. Explain the mechanism of action, ophthalmic uses and adverse effects of Ciprofloxacin.
5. Explain the mechanism of action of Dexamethasone and mention two ophthalmic uses and two long term ocular adverse effects.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Mention three ocular techniques of administration of lignocaine with one example for each.
7. Mention three drugs used in the treatment of cytomegalovirus retinitis.
8. Mention two drugs used in the treatment of fungal keratitis. Write the mechanism of action of any one.
9. Mention three ophthalmic dyes and write one ophthalmic use for each.
10. Mention three ocular irrigating solutions and write one indication for each.
11. Mention three ophthalmic preservatives used in topical ophthalmic medications.

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Paper – II

[Max. Marks: 80]

Refraction Investigative Ophthalmology

Q.P Code : AHS-132

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY (Answer any two)

2 X 10 = 20 Marks

1. What is aphakia. Describe the aetiology, clinical feature and treatment of aphakia.
2. Causes of post-cataract surgery astigmatism. Write on different treatment available.
3. Write a long note refinement and finalization of cylindrical lens axis and power.

SHORT ESSAY

6 X 5 = 30 Marks

4. Accommodation pathway
5. Tropicamide
6. Procedure of retinoscopy . Add a note observation and inference.
7. Hirshberg test.
8. Define amblyopia. What are the characteristics of an amblyopic eye.
9. Three components of binocular single vision.

SHORT ANSWERS

10 X 3 = 30 Marks

10. Fundus picture in pathological myopia.
11. Advantages of intra-ocular lens.
12. Disadvantage of soft contact lens.
13. Astigmatic fan.
14. Anisometropia.
15. Nerve supply of all extra ocular muscles.
16. Treatment of paralytic squint.
17. Three signs of 6th nerve palsy.
18. Sherrington's law.
19. Yolk muscles.

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Paper – III

[Max. Marks: 80]

Ophthalmic Instruments and Appliances

Q.P Code : AHS-133

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY (Answer any two)

2 X 10 = 20 Marks

1. Describe the various types of illumination in slit lamp Bio microscopy
2. Principle of Bausch and Lomb keratometry. Write on optical system, procedure and interpretation of keratometry.
3. Write a long note on optical pachymeter.

SHORT ESSAY

6 X 5 = 30 Marks

4. Describe haploscope.
5. Factors affecting contrast sensitivity.
6. Method of analysis of specular microscopy.
7. Photokeratoscopy.
8. Advantages and disadvantages of indirect ophthalmoscopy.
9. Write in detail about standard lensmeter with schematic diagram of the optics.

SHORT ANSWERS

10 X 3 = 30 Marks

10. Boundaries or peripheral limits of normal visual fields.
11. Dark adaptometer.
12. +78 D.
13. Hertels exophthalmometer.
14. Arden grating.
15. Optics of fundus camera.
16. Mention three reliability indices in glaucoma visual field.
17. Andersons criteria.
18. Air puff tonometer.
19. Define absolute and relative scotoma.