SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year Semester-III

April 2023 Examination

Bachelor of Optometry

Time: 2.30 Hrs. **Paper – I** **[Max. Marks: 80]**

Ocular Anatomy & Ocular Physiology

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 Anatomy (40 Marks)

Q.P Code : K3195

LONG ESSAY **1 X 10 = 10 Marks**

1. Describe the layers of retina and its applied anatomy

SHORT ESSAY **3×5=15 Marks**

2. Define epithelium. Classify with examples
3. Describe the development of eye
4. Describe the formation and drainage of aqueous humor

SHORT ANSWERS **5×3=15 Marks**

5. Structure of Optic disc
6. List the layers of cornea
7. Draw a neat labelled diagram of eyeball
8. Name the structures passing through superior orbital fissure
9. What are tarsal glands

Section – B

Ocular Physiology (40 Marks)

Q.P Code : K3196

(Use separate answer booklet for Section-B)

LONG ESSAY **1×10=10 Marks**

1.Draw a neat, labeled diagram of the visual pathway. Name the lesion associated with in the left optic tract.

SHORT ESSAY **3×5=15 Marks**

2.Describe the factors affecting transparency of lens.
3.Name the intraocular fluid and list its function
4.List the ten layers of retina

SHORT ANSWERS **5×3=15 Marks**

5. Define blind spot
6. List the changes that occur in the eye during dark adaptation
7. Name the three layers of the eyeball
8. List the functions of the extrinsic muscles of the eye
9. Classify the colour blindness based on Young-Helmholtz theory of colour vision

* * *

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year Semester-III

April 2023 Examination

Bachelor of Optometry

Time:2.30 Hrs. **Paper – I** **[Max. Marks: 80]**

Ocular Microbiology & Ocular Biochemistry

(Use separate answer booklet for Section A & B)

Section – A

Ocular Microbiology (40 Marks)

Q.P Code : K3205

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY **1 X 10 = 10 Marks**

1. Classify sterilization. Describe in detail the working principle of hot air oven with a diagram. List the articles sterilized in the hot air oven.

SHORT ESSAY **3 X 5 = 15 Marks**

2. Describe the clinical features and laboratory diagnosis of bacterial conjunctivitis.
3. Describe the clinical features and laboratory diagnosis of Acanthamoeba Keratitis.
4. Draw a neat labelled diagram of the bacterial cell. List the differences between cell walls of Gram positive and Gram negative bacteria.

SHORT ANSWERS **5 X 3 = 15 Marks**

5. Enumerate 3 antimicrobial susceptibility testing methods.
6. Enumerate 3 antimicrobial agents interfere with protein synthesis
7. Enlist the components of standard precautions.
8. Enumerate three fungal agents causing corneal ulcer.
9. Five moments of Hand Hygiene.

Section – B

Ocular Biochemistry (40 Marks)

Q.P Code : K3206

(Use separate answer booklet for Section-B)

Long Essay **1X10 = 10 Marks**

1. Describe the chemistry, RDA and biochemical role of Vitamin A in vision. Add a note on deficiency disorders of Vitamin A.

Short Essay **3X5 = 15 Marks**

2. Write the composition and functions of Vitreous humor.
3. Describe Lens proteins.
4. Describe structure and functions of Retina.

Short Answers **5X3 = 15 Marks**

5. Mention three muscle proteins with their functions.
6. Functions of Aqueous humor.
7. Mention three Plasma proteins with their functions.
8. Biochemical composition of Corneal epithelium.
9. Irrigating solutions.

* * *

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

April 2023 Examination

Bachelor of Optometry

Time : 2.30 Hrs. **Paper-III** **[Max. Marks : 80]**

Subject: Physical & Physiological Optics

Q.P Code : K3210

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY **2 X 10 = 20 Marks**

1. Describe Contrast sensitivity. Mention the types and factors affecting the contrast sensitivity. List the diagnostic applications of the same.
2. Define Accommodation. Mention the ocular structures concerned with accommodation. Explain the theories of mechanism of accommodation.

SHORT ESSAY **6 X 5 = 30 Marks**

3. Explain the different test types used to measure the visual acuity for near.
4. Describe in detail about types of Astigmatism and management.
5. Explain in detail about subjective refinement of refraction.
6. Write a note on Gullstrand's reduced eye.
7. Describe briefly about Diffraction. Mention the clinical significance and applications of Diffraction.
8. Describe the fundus characteristics in pathological myopia.

SHORT ANSWERS **10 X 3 = 30 Marks**

9. Name the methods of subjective refinement of refraction.
10. Name the phenomena based on Wave optics.
11. Mention the clinical uses of purkinje-Samson images.
12. List the points to identify the concave lenses and its application.
13. Name the axes(three) and visual angles(three) of the eye.
14. Mention the application of interferometry.
15. List the clinical signs of Aphakia
16. Illustrate the modes of prescribing presbyopic add.
17. Explain fogging technique.
18. Describe Preferential looking test

* * *