



**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**

**(A DEEMED TO BE UNIVERSITY)**

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

**September 2022 Examination**

**B.Sc. Ophthalmic Technology & Optometry**

**Time : 2.30 Hrs.**

**[ Max. Marks : 80]**

**SUBJECT : OCULAR DISEASE-I (Anterior Segment Disease)**

**Q.P Code : J4640**

*Your answers should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Discuss clinical features and management of keratoconus.
2. Describe briefly principle, types and procedure of retinoscopy.

**SHORT ESSAY (Answer any 6)**

**6 X 5 = 30 Marks**

3. Describe the clinical features and management of hypermetropia.
4. Refraction of irregular reflex
5. Describe the clinical features and management of myopia.
6. What is transposition? How do you transpose +5.00 -3.00 x 85 degrees.
7. Anomalies of accommodation.
8. Describe Astigmatism, its clinical features, types and management.
9. Describe Jackson cross cylinder
10. Write about Objective refraction.

**SHORT ANSWERS (Answer any 10)**

**10 X 3 = 30 Marks**

11. Mention three causes of Aphakia.
12. Mention complications of aphakia glasses
13. Name the test charts used for paediatric visual acuity assessment
14. Difference between concave and convex lenses
15. Management of presbyopia.
16. Define Far point and near point.
17. Classify presbyopia
18. AC/A ratio
19. Fundus features in Pathological myopia
20. Management options of post op refractive errors.
21. Name three refractive surgeries for myopia management.
22. Define Emmetropia & Ammetropia

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**B.Sc. Ophthalmic Technology & Optometry**

Time: 2.30 Hrs.

[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 : J4655**

**LONG ESSAY**

**1 x 10 = 10 marks**

1. Write normal histology of Lens .Discuss types aetiology , pathogenesis and pathology of cataract .

**SHORT ESSAY ( Answer any Three )**

**3 x 5 = 15 marks**

2. Glaucoma
3. Retinoblastoma
4. Optic Nerve Tumors
5. Wound healing

**SHORT ANSWERS ( Answer any five)**

**5 x 3 = 15 marks**

6. Three causes for Neutrophilia.
7. Three causes for proteinuria.
8. Three causes for Microcytic Hypochromic Anaemia .
9. Sty.
10. Three factors affecting the ocular wound healing .
11. Stages of Acute Inflammation .

**Section – B**

**Ocular Pharmacy & Pharmacology (40 Marks)**

**Q.P Code : J4656**

*(Use separate answer booklet for Section-B)*

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Classify drugs used in glaucoma. Explain the mechanism of action and route of administration of **five** drugs from different category. (5+5)

**SHORT ESSAY ( Answer any Three )**

**3X 5 = 15 Marks**

2. Mention periocular routes of drug administration. Explain advantages and disadvantage of any **two** routes (2+1.5+1.5)
3. Define cycloplegia. Mention the drugs causing it and write their uses (1+2+2)
4. Explain mechanism of action, uses and adverse effects of bromfenac (2+2+1)
5. Explain mechanism of action, uses and adverse effects of ciprofloxacin (2+2+1)

**SHORT ANSWERS ( Answer any five)**

**5 X 3 = 15 Marks**

6. Mention **three** strategies to prevent infection in outpatient department
7. Mention **three** ocular preservatives
8. List **three** drugs used to treat dry eye syndrome
9. Explain mechanism of action and write **one** use and **one** adverse effect of fluconazole
10. Mention **three** ocular dyes and write their uses
11. Explain mechanism of action and write **one** use and **one** adverse effect of cyclosporine

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**Time : 2.30 Hrs.**

**[ Max. Marks : 80]**

**Subject : Ophthalmic And Optical Instrumentation And Procedure**

**Q.P Code : J4660**

*Your answers should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Write the difference between direct and indirect ophthalmoscopy.
2. Enlist the complications of Post LASIK.

**SHORT ESSAY (Answer any 6)**

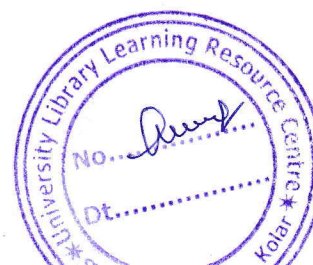
**6 X 5 = 30 Marks**

3. Differentiate between Convex lens and Concave lens.
4. Explain TBUT.
5. Write a note on streak retinoscope.
6. Mention the clinical applications of FFA in Ophthalmology.
7. Mention different types of retinoscopes.
8. Differentiate simple and compound microscopes.
9. Give the characteristics of prism.
10. Mention different types of tonometers.

**SHORT ANSWERS (Answer any 10)**

**10 X 3 = 30 Marks**

11. Mention the uses of red and green filters.
12. What are the disadvantages of keratometer.
13. Explain Maddox rod.
14. Describe binocular balancing.
15. Explain Jackson cross cylinders.
16. Enlist the uses of Humphrey visual field analyser.
17. Explain Pencil Push up test.
18. Describe non-contact tonometer.
19. Mention the clinical applications of direct ophthalmoscope.
20. Name some of the Optical instruments where we use prisms.
21. Give the optics of Pin hole.
22. Mention the components of trial lens case.







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**Time : 2.30 Hrs.**

**[ Max. Marks : 80]**

**Subject : Refraction Investigative Ophthalmology**

**Q.P Code : J4670**

*Your answers should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. What is binocular single vision? Describe the three grades of BSV.
2. Describe the clinical features and management of hypermetropia.

**SHORT ESSAY (Answer any 6)**

**6 X 5 = 30 Marks**

3. How do you test for abnormal retinal correspondence?
4. Abnormal head posture.
5. What are the three grades of Binocular single vision?
6. Discuss Occlusion therapy in managing amblyopia.
7. What are the tests of stereopsis?
8. Discuss the origin, insertion, nerve supply and actions of extra ocular muscles.
9. Discuss the types of amblyopia.
10. Describe prismatic aberration in an aphakic eye.

**SHORT ANSWERS (Answer any 10)**

**10 X 3 = 30 Marks**

11. Mention three types of ARC.
12. Mention any three signs of paralytic squint.
13. What are the signs of fourth cranial nerve palsy?
14. Mention three causes of Aphakia.
15. What is Hering's law?
16. What are the components of binocular vision?
17. Mention three uses of RAF ruler.
18. Name the types of nystagmus.
19. Write about uses of synoptophore.
20. Write a note on treatment modalities of astigmatism.
21. Give a note on Near point of convergence.
22. Name the test charts used for paediatric visual acuity assessment.

