

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

March 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 slit lamp biomicroscopy.
2. Discuss Pachymeter – Principles, types, clinical importance

SHORT ESSAY (Answer any 6)

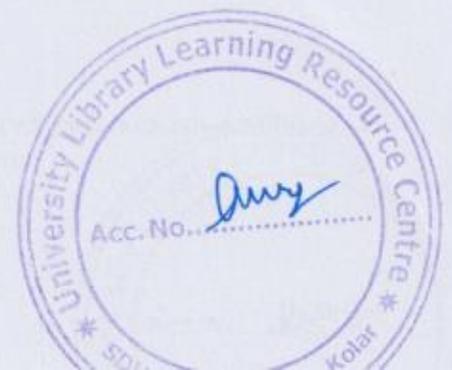
6 X 5 = 30 Marks

3. Discuss subjective Autorefractometer.
4. Discuss direct Ophthalmoscopy- its principles, procedure and uses.
5. Describe the technique of Applanation tonometer.
6. What are the advantages and disadvantages of indirect ophthalmoscope.
7. How do you assess AC/A ratio?
8. Describe the optics, advantages and disadvantages of fundus camera.
9. Discuss the possible sources of 'error' in perimetry report.
10. Explain the determination of cylindrical power and axis using Jackson cross cylinder.

SHORT ANSWERS (Answer any 10)

10 X 3 = 30 Marks

11. Mention any three Non -contact tonometer
12. What are the uses of placido disc.
13. Mention four uses of prisms in ophthalmology.
14. Boundaries or peripheral limits of normal visual field.
15. Andersons criteria.
16. Arden grating.
17. Ophthalmic uses of telescope.
18. Applications of ultrasonography in ophthalmology
19. Mentions 3 types of lasers and its uses
20. Mention 3 types of perimeter.
21. Mention three standard test charts.
22. Principle and uses of spectrometer.



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Ocular Pathology, Ocular Pharmacy and Pharmacology

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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. List tumors of Eyelid. Discuss pathogenesis and pathology of Squamous cell carcinoma of eyelid .

SHORT ESSAY (Answer any Three)

3 x 5 = 15 marks

2. Retinal Detachment
3. Cataract
4. Optic Nerve tumors
5. Corneal Dystrophies

SHORT ANSWERS (Answer any five)

5 x 3 = 15 marks

6. Three causes for Lymphocytosis.
7. List three types of Urine sample.
8. Three causes for Normocytic Normochromic Anaemia.
9. What is inflammation and types of inflammation?
10. Three Intraocular tumors.
11. Acute Conjunctivitis.

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 anti-inflammatory agents. Explain mechanism of action, uses and adverse effects of aspirin (4+2+2+2)

SHORT ESSAY (Answer any Three)

3X 5 = 15 Marks

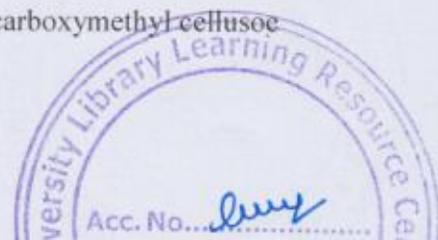
2. Explain the periocular route of administration with examples
3. Explain mechanism of action of **five** drugs from different category used in the treatment of glaucoma
4. Explain mechanism of action, uses and adverse effects of ciprofloxacin (2+2+1)
5. Explain mechanism of action, uses and adverse effects of erythromycin (2+2+1)

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Mention **three** drugs used in herpes keratitis
7. Mention **three** ocular dyes and write their uses
8. Explain mechanism of action and write **one** use and **one** adverse effect of carboxymethyl cellulose
9. Explain mechanism of action and write **two** adverse effects of tacrolimus
10. Mention **three** components of contact lens solution
11. Mention **three** ocular antiseptics and write **three** uses

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[Max. Marks: 80]

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. Describe the different methods of illumination in slit lamp.
2. Write in detail about direct Ophthalmoscopy, its principles, procedure and uses.

SHORT ESSAY (Answer any 6)

6 X 5 = 30 Marks

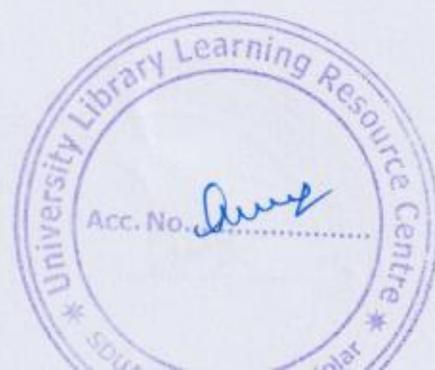
3. What are the instruments used in Corneal examination and add a note on each?
4. Write the different colour vision testing and its clinical applications.
5. Describe the types of keratometry
6. Write about different illumination techniques of slit lamp bio microscopy
7. Describe the optics, advantages and disadvantages of fundus camera.
8. Write briefly about Maddox wing and its uses.
9. Describe Radioscope, its principle, method and applications.
10. Non-contact tonometer.

SHORT ANSWERS (Answer any 10)

10 X 3 = 30 Marks

11. Dark adaptometer.
12. +90D Lens.
13. Air puff tonometer.
14. Three common visual field defect seen in HVF report.
15. The correct end point in applanation tonometry reading
16. What is Andersons criteria.
17. Describe about Jackson cross cylinder
18. Describe about lensometer
19. Mention the applications of telescope in ophthalmology
20. Mention 3 difference between DO and IDO
21. Mention Trial frame designs
22. Mention the types of LASER used in ophthalmology

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

SHORT ANSWERS (Answer any 10)

10 X 3 = 30 Marks

11. What is transposition? Mention the types
12. Give a note on Near point of convergence.
13. Describe pencil push up test.
14. Describe Herings law
15. Name the test charts used for paediatric visual acuity assessment
16. Describe a Maddox rod
17. Describe prismatic aberration in an aphakic eye.
18. Write a note on modified torington chart.
19. Mention the types of occlusion and its uses
20. What is penalization and describe the technique
21. Describe cover tests
22. Mention 3 signs in keratoconus

