Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 16-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

LOW VISION AIDS AND GERIATRIC OPTOMETRY – (RS-3)
Q.P. CODE: 3121

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Three) **3 x 10 = 30 Marks**

1. Elaborate the spectacle and contact lens dispensing in geriatric age group.
2. Write the optics, ray diagram, difference, advantages and disadvantages of Keplerian and gelelain telescopes?
3. Enumerate common disorders leading to low vision. Write in detail about problems and management of the following:-
    a. Corneal opacity
    b. Glaucoma
    c. Age related macular degeneration
4. Write in brief about vascular disorders due to old age.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

5. Write the categories of visual impairment according ICD 10^{th} revision.
6. Describe radical retinoscopy with example.
7. Write the management strategies of peripheral field defects.
8. What eccentric fixation? How to manage central field defects.
9. Differences between hand and stand magnifier.
10. Write the reflective changes due to uveitis.
11. Write the types, signs, symptoms and management of age-related macular degeneration.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Calculate the required magnification for distance vision: Distance BCVA is 20/200, target VA is 20/40.
13. What is disability and handicap?
14. Notex.
15. Glare.
16. Control devices.
17. Spectacle magnifiers.
18. Reverse telescope.
19. PVD.
20. Mobility cane.
21. Signature guide.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 18-May-2023

Time: Three Hours **Max. Marks: 80**

CONTACT LENS - (RS-3)
Q.P. CODE: 3122

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer Any Three) **3 x 10 = 30 Marks**

1. Explain soft toric lens fit assessment. Explain importance of stabilization technique in soft toric
2. Preliminary examinations required for a contact lens fitting
3. Keratoconus patient special lenses, their selection method and fit assessment
4. Describe in detail about hypoxia related soft contact lens complication

SHORT ESSAYS (Answer Any Six) **6 x 5 = 30 Marks**

5. Write a short note on mechanical complication of silicon hydrogel contact lens
6. Explain accommodation and convergence with contact lenses
7. Explain dynamic and static fitting assessment of RGP CL
8. Write a short note on soft contact lens manufacturing technique
9. Describe in detail indication for pediatric contact lens
10. Explain the components of contact lens solution and its purpose
11. Write about 3'O and 9'O clock staining

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Vertex distance calculation of power conversion for contact lens
13. Oxygen permeability
14. V gauge
15. Difference between silicon hydrogels and hydrogels
16. SEAL
17. How to select the diameter for soft lenses and RGP?
18. Therapeutic contact lens
19. Prosthetic contact lens
20. Advantages of daily disposable lenses
21. Dynamic stabilization

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 20-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

SYSTEMIC DISEASES AND OCULAR DISEASES (RS – 3)
Section A: SYSTEMIC DISEASES – (40 Marks)
Q.P. CODE: 3123

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Both QP Codes 3123 and 3124 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer Any Two) **2 x 10 = 20 Marks**

1. Describe pathophysiology, classification, clinical examinations and diagnosis of arterial hypertension
2. Describe the clinical features, complications and management of thyroid diseases
3. Discuss in detail of diabetic mellitus and its ocular manifestations

SHORT ESSAYS (Answer Any Two) **2 x 5 = 10 Marks**

4. Short essay on arthritis
5. Write about Neoplasia and eye
6. Genetic disease – diagnosis and prevention

SHORT ANSWERS **5 x 2 = 10 Marks**

7. List-out the ocular manifestations of leprosy
8. What are the ocular changes of hyperthyroidism?
9. Name tropical diseases
10. Down Syndrome
11. Short note on Diabetic Mellitus drugs

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 20-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

SYSTEMIC DISEASES AND OCULAR DISEASES
SECTION B: OCULAR DISEASES – (40 MARKS)
(REVISED SCHEME – 3)
Q.P. CODE: 3124

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3123 and 3124 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer Any Two) **2 x 10 = 20 Marks**

1. Types of Diabetic Retinopathy. Write about NPDR in detail.
2. Lesion in visual pathway and different field defects.
3. Write about etiology and cataract and its management.

SHORT ESSAYS (Answer Any Two) **2 x 5 = 10 Marks**

4. What is retinal detachment? Clinical features and management of RD.
5. Write short note on orbital cellulitis.
6. Short note on corneal ulcer.

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Definition of Pan Uveitis.
8. What are the anti glaucoma drugs?
9. Types of ARMD.
10. What is Marcus Gun Puppil?
11. Grades of Pterygium.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 23-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

DISPENSING OPTOMETRY OCCUPATIONAL OPTOMETRY
SECTION A – DISPENSING OPTOMETRY (40 MARKS)
(REVISED SCHEME – 3)
Q.P. CODE: 3125

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3125 and 3126 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Discuss the role of prescribing special lenses to reduce – occupational hazards at work places, industrial accidents and injuries and special requirements for prescribing lenses for sportsperson
2. Describe the measurement of assorted faces for spectacle.
3. What is pediatric dispensing? Describe the frame and lens selection criteria of pediatric.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

4. Explain advantages of plastic lenses over glass.
5. What are the points to be checked in verification of spectacles of a patient complaining of intolerance to recently prescribed bifocal glasses?
6. Describe the problems that a patient may face after weering wrongly centered bifocals.

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Explain the term segment height and segment depth.
8. Mechanical requirement of bifocal lenses
9. Varifocal lenses
10. Glass cement
11. Refractive index

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 23-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

DISPENSING OPTOMETRY OCCUPATIONAL OPTOMETRY
SECTION B – OCCUPATIONAL OPTOMETRY (40 MARKS)
(REVISED SCHEME – 3)
Q.P. CODE: 3126

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3125 and 3126 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. What is school screening programme? What is the importance of school screening programme and role of optometrist in school screening?
2. What is the role of optometrist in promotion of general and visual health and safety of people at work?
3. Describe in detail about non mechanical occupational injury.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

4. Principle of medical ethics and importance of code of ethics.
5. Effect of UV and IR rays ocular.
6. Pre-employment eye examinations.

SHORT ANSWERS **5 x 2 = 10 Marks**

7. First aid for chemical injury.
8. What is the importance of public relation in hospitals?
9. Eye protector and its types.
10. What are the types of camps?
11. What is 20-20-20 rule?

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 25-May-2023

Time: Three Hours **Max. Marks: 80 Marks**

Pediatric Optometry, Binocular Vision and Advances in Optometry (RS-3)
Q.P. CODE: 3127

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Three) **3 x 10 = 30 Marks**

1. Paralytic strabismus and its classification. Write a note on Park's three step test
2. History taking in pediatric age group
3. Write a note on grades of binocular vision. Advantage of binocular vision
4. Write a note on congenital anomalies of crystalline lens

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

5. Define EOM? Name the EOM muscle and its actions
6. Briefly explain Horopter and pannus area of fusion
7. AV-pattern
8. Write a short note on krimsky test and modified krimsky test
9. Differences between paralytic and non paralytic squint
10. Bilateral 4^{th} nerve palsy
11. Explain pseudo strabismus

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Origin of rectus muscle
13. Principle of synaptophore
14. Types of ARC
15. Elecrooculogram
16. Symblepharon
17. Bilateral elevator palsy
18. Occlusion therapy
19. Hypoaccommodative esotropia
20. Mobius syndrome
21. Hess screen

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination – 16-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

LOW VISION AIDS AND GERIATRIC OPTOMETRY (RS-4)
Q.P. CODE: 3351

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. A 48 year old male patient complains of gradual painless diminished vision for distance and near in both eyes for 5 years. He was unable to move around at night since the last 15 years. He was diagnosed to have retinitis pigmentosa in both eyes. There was no record of glass or previous eye examination. BCVA (OD): 0.3 LogMAR, NV 1m@25cm. (OS):0.7LogMAR, NV:1.25m@25cm
   How will you manage this case?

2. Explain gerontology. Briefly mention the steps of geriatric ocular examination
   OR
   Describe the Amsler grid testing and its impact on low vision management

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Comparison of Galilean and Keplerian telescope
4. Write short note on assistive devices used for low vision patients
5. Write short note on Galilean telescope and draw the optics
   OR
   Briefly explain the importance of selecting low vision devices
6. Describe rehabilitation of children with low vision
7. Write short note on genetic counselling in low vision rehabilitation
8. Describe glare controlling devices
9. Write a short note on geriatric dispensing
10. Describe the function of low vision rehabilitation counselor
    OR
    Briefly explain the equipment required for the Low vision clinic
11. Short note on age related changes in cornea and eyelid
12. Briefly explain about colour vision testing in low vision patients

SHORT ANSWER **10 x 3 = 30 Marks**

13. Absorptive lenses
14. BCVA 6/60 to get 6/12 how much magnification required in telescope
15. Write two advantages of electronic magnifier over optical magnifier
16. In moderate Alzheimer disease what type of low vision devices will be useful
17. Enlist near optical devices used in low vision patient
18. Rehabilitation of a patient with albinism
19. Refractive changes due to uveitis
20. Describe the pinhole spectacle
21. Relative distance magnification
22. Baily – Lovie chart

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 18-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

CONTACT LENS (RS-4)
Q.P. CODE: 3352

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Explain the selection criteria and evaluation of trial lens fitting of soft contact lens.
2. Define Presbyopia. Explain different options of correcting presbyopia with contact lens.

   OR

   What are silicon hydrogel lenses? How are they different from hydrogel lenses? In what conditions of the eye are they contraindicated.

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Write fitting philosophies for correcting Keratoconus.
4. What are therapeutics contact lenses? What are the considerations for these lenses?
5. Explain different types of contact lens used for therapeutic purpose. Explain indication of therapeutic contact lens.

   OR

   Write short note on the basic types of disposable contact lenses.
6. FDA classification of soft contact lens and gives some example for each group.
7. Briefly explain advantages and disadvantages of monovision correction.
8. Briefly explain the contact lenses and sports.
9. Write about steps involved and instructions give while dispensing contact lens.
10. Explain Ideal contact lens material properties.

    OR

    Write short note Gaint Papillary conjunctivitis and Superior limbic Kerato conjunctivitis.
11. Find out contact lens power for following prescriptions (vertex distance =14mm). a) -6.00DSPH/-4.00DCYLx90 b) -6.00DSPH/-5.00DCYLx135
12. Explain RGP fitting characteristics with its modification.

SHORT ANSWER **10 x 3 = 30 Marks**

13. V –gauge.
14. Wetting angle.
15. Bandage contact lens.
16. What is the power of contact lens of a+20.00DS aphake wearing his glasses at a distance of 10mm from the corneal plane?
17. Enlist various soft toric stabilization methods.
18. Oxygen permeability.
19. Define and explain contact lens magnification.
20. Image size with spectacles and contact lens.
21. Spectacle refraction of a patient is $-5.00/-1.75x150^0$. He was fitted with a soft toric lens $-5.00/-1.75x150^0$, which rotates 15^0 clockwise on the eye. What is the final prescription of the contact lens using LARS rule?
22. Prosthetic contact lens.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination – 20-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

RESEARCH METHODOLOGY AND STATISTICS (RS-4)
Q.P. CODE: 3353

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. What do you mean by correlation? Explain the concept of correlation coefficient
2. Define research. Explain the research process
   OR
   Discuss the components and uses of health information system

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Describe the characteristics of a good hypothesis
4. Explain briefly simple random sampling
5. Calculate the standard deviation for the following data on Retina OPD attendance on a sample of 10 days
   115, 112, 120, 118, 122, 116, 118, 120, 117, 123
   OR
   Enumerate the concept of skewness
6. Illustrate bar diagram in organization of data
7. Write a note on arithmetic mean. Explain its application in healthcare
8. Explain total fertility rate
9. Discuss sample registration system
10. Describe normal distribution and its properties
    OR
    Write about concept of reliability
11. Describe different scales of measurements
12. Discuss validity in detail

SHORT ANSWER **10 x 3 = 30 Marks**

13. Write a note on use of random numbers table
14. Differentiate frequency polygon and frequency table
15. Merits and demerits of mode
16. Epidemiological surveillance
17. Incidence and prevalence
18. Explain the reasons for sampling
19. Application of range
20. Application of research in optometry
21. Notification of diseases
22. Write a note on representation of data

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination – 23-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION A: SYSTEMIC DISEASES (RS-4)
Q.P. CODE: 3354

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3354 and 3355 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No. 1 choice) **1 x 10 = 10 Marks**

1. Explain the pathology, clinical feature and diagnosis of pulmonary tuberculosis
   OR
   What is genetic counseling? Explain the types and enumerate the indicators for genetic counseling in genetic diseases

SHORT ESSAYS (Question No. 5 choice) **5 x 5 = 25 Marks**

2. Write a short essay on rheumatic fever
3. Describe the clinical features management of malaria
4. Explain briefly on malignant hypertension
5. How do you diagnose a thyroid disease? write its clinical features and management
   OR
   Explain the diagnosis, complications and management of diabetes mellitus
6. Write briefly on nutrition and eye health

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

7. Define tropical disease. Give two examples
8. Provide the diagnosis of cancer
9. What is Larva migrans?
10. Briefly discuss about antibodies
11. HIV infection

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination – 23-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION B: OCULAR DISEASES (RS-4)
Q.P. CODE: 3355

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3354 and 3355 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No. 1 choice) **1 x 10 = 10 Marks**

1. Describe types, clinical features and management of cataracts
   OR
   Discuss signs, symptoms and treatment of anterior uveitis

SHORT ESSAYS (Question No. 5 choice) **5 x 5 = 25 Marks**

2. Write about signs of hypertensive retinopathy
3. List the differences between episcleritis and scleritis
4. Give the clinical features and management of viral keratitis
5. Describe in detail about signs of keratoconus
   OR
   Explain the treatment of primary open angle glaucoma
6. Discuss signs and management of orbital cellulitis

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

7. Dacryocystitis
8. Describe Lagophthalmos signs and treatment
9. Give causes and clinical signs of blue sclera
10. Write the clinical signs and treatment of vitreous hemorrhage
11. Classification and management of blepharitis

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 25-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION A : PRACTICE MANAGEMNT AND LAW IN OPTOMETRY (50 Marks)
(RS-4)
Q.P. CODE: 3356

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3356 and 3357 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No.1 choice) **1 x 10 = 10 Marks**

1. Enumerate the laws governing practice of medical and paramedical professional in India.
   OR
   Define accounting. Enumerate accounting principles.

SHORT ESSAYS (Question No.5 choice) **5 x 5 = 25 Marks**

2. What is Subsidiary books? Explain different subsidiary books.
3. What is ethical code? Write a note on about professional ethics.
4. How do you effectively manage staff?
5. Explain different inventory control methods.
   OR
   Write five principles of insurance.
6. Explain briefly the phases of PR.

SHORT ANSWER **5 x 3 = 15 Marks**

7. What is clinic management system?
8. What is depreciation?
9. Define negligence.
10. What is Income tax and scales tax?
11. Importance of press conference as part of PR.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination – 25-May-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION B: OCCUPATIONAL OPTOMETRY (RS-4)
Q.P. CODE: 3357

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3356 and 3357 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No. 1 choice) **1 x 10 = 10 Marks**

1. Role of optometrist in general health, visual health and safety at work
   OR
   Briefly explain about effect of electromagnetic radiation on eye

SHORT ESSAYS (Question No. 5 choice) **5 x 5 = 25 Marks**

2. Write about the minimum wages act 1948
3. Describe the various strategic plan for controlling the diabetic retinopathy
4. Write on different types of absorptive lenses and their uses in occupation
5. Write about the procedure of eye camp in school screening
   OR
   Write about National agencies in health care
6. Explain about occupational safety. What are the preventive measures for the same?

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

7. First aid for chemical injury
8. Types of eye camp
9. Occupational hazards
10. The role of optometrist in increasing awareness about blindness
11. IOFB

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 24-Nov-2023

Time: Three Hours **Max. Marks: 80 Marks**

LOW VISION AIDS AND GERIATRIC OPTOMETRY – (RS-3)
Q.P. CODE: 3121

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Three) **3 x 10 = 30 Marks**

1. Write the cause of albinism, types, systemic and ocular sign and symptoms, low vision management.
2. What are the various type of Distance vision devices are available? Write the advantages and disadvantages of each device.
3. Write in brief about vascular disorder due to age.
4. Write in brief about field expanders.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

5. Write a short note on Berkeley-Rudimentary Vision test?
6. Write about visual functions evaluation in low vision patient?
7. How you will give training for different Magnifiers?
8. What are the refractive changes occurs due diabetes?
9. What are the ocular changes happen due to aging?
10. Write the causes of overall blur vision, central vision loss, peripheral vision loss.
11. A patient (14/M) diagnosed with Retinitis Pigmentosa (BE). BCVA 6/24, N6. (BE), has difficulty in dim/dark environment. Also has problem to copy from blackboard from 4th bench. Suggest management options.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Write two causes may leads to central field loss.
13. Apt BCVA 6/36, to get VA 6/12 how much magnification required in telescope?
14. Define Legal blindness and Handicap?
15. Mention the difference between inclusive education and integrated education?
16. Describe the importance of detailed history taking in low vision patients.
17. Write few diagnostic procedures to evaluate Macular function.
18. Write two diseases where color vision is affected.
19. Write two advantages of stand magnifier over handheld magnifier.
20. Describe Braille.
21. What are the genes are responsible for Night blindness?

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 27-Nov-2023

Time: Three Hours **Max. Marks: 80 Marks**

CONTACT LENS - (RS-3)
Q.P. CODE: 3122

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer Any Three) **3 x 10 = 30 Marks**

1. Explain indication for RGP CL. Write about RGP CL Fitting assessment in detail.
2. Write in detail about etiology, signs, symptoms and management for Corneal Oedema and hypoxia related Soft contact lens complications.
3. Explain in detail about various stages of CLPC with management.
4. Write in detail about RGP manufacturing techniques.

SHORT ESSAYS (Answer Any Six) **6 x 5 = 30 Marks**

5. Write in detail about sports and contact lens
6. Write in detail about different stabilization techniques used in SCL Toric
7. 25-year-old computer engineer came for contact lens trial. What preliminary evaluation is required before fitting trial Contact Lens?
8. Write about Multifocal Contact lens. List down multifocal contact lenses available in India.
9. Describe different contact lens options available for keratoconus.
10. Write a short note on component of care and maintenance of SCL
11. Write a short note on tinted soft contact lens.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Oxygen permeability and Oxygen Transmissibility.
13. Extended wear and Continuous Wear.
14. Spin Cast.
15. Radiuscope.
16. HVID.
17. Lipid deposits.
18. ONE STEP Hydrogen peroxide.
19. Accommodation in myopes with CL and Spectacle.
20. Push up test.
21. Wettability.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 29-Nov-2023

Time: Three Hours **Max. Marks: 80 Marks**

SYSTEMIC DISEASES AND OCULAR DISEASES (RS – 3)
Section A: SYSTEMIC DISEASES – (40 Marks)
Q.P. CODE: 3123

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Both QP Codes 3123 and 3124 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer Any Two) **2 x 10 = 20 Marks**

1. Define Neoplasia. Classify tumours. Write the differences between benign and malignant tumours
2. Discuss the ocular manifestations of
    a) Leprosy
    b) Toxoplasmosis
    c) Syphilis
    d) Thyroid
3. Discuss the classification, risk factors and complications of systemic hypertension

SHORT ESSAYS (Answer Any Two) **2 x 5 = 10 Marks**

4. Write about thyrotoxicosis
5. Short essay on retinoblastoma
6. Write essay on Larva Migrans

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Down syndrome
8. List-out the clinical features of TB
9. Write the Grades of Hypertensive retinopathy
10. What are connective tissue diseases? Give examples
11. Goitre

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 29-Nov-2023

Time: Three Hours **Max. Marks: 80**

SYSTEMIC DISEASES AND OCULAR DISEASES
SECTION B: OCULAR DISEASES – (40 MARKS)
(REVISED SCHEME – 3)
Q.P. CODE: 3124

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 3123 and 3124 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer Any Two) **2 x 10 = 20 Marks**

1. Write pathophysiology, clinical features, types and management of cataract
2. Brief on classification of glaucoma and mention its management
3. Describe the classification, clinical evaluation and management of retinal detachment

SHORT ESSAYS (Answer Any Two) **2 x 5 = 10 Marks**

4. Management of various conjunctivitis
5. Stages, clinical features and management of ROP
6. Describe the diagnostic tools for glaucoma

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Macular function test
8. Entropion
9. Dyschromatopsia
10. Clinical features of retinoblastoma
11. Name four corneal dystrophy

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 01-Dec-2023

Time: Three Hours **Max. Marks: 80 Marks**

DISPENSING OPTOMETRY AND OCCUPATIONAL OPTOMETRY
SECTION A: DISPENSING OPTOMETRY – (RS – 3)
Q.P. CODE: 3125

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3125 and 3126 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer Any Two) **2 x 10 = 20 Marks**

1. Explain the different facial measurements with Rees Faribanks facial gauge
2. Explain the types of bifocal lenses, along with each type's advantages, disadvantages and whom to be prescribed
3. Enumerate the various methods of assessing the faults in lenses

SHORT ESSAYS (Answer Any Two) **2 x 5 = 10 Marks**

4. Lens surfacing and polishing
5. Explain the tools used for repairing the frames
6. Draw a diagram of progressive addition lens. Explain the advantages of progressive addition lens over bifocal lenses

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Different shapes of bevels for edging the lenses
8. What is the purpose of ED size in boxing system?
9. List the various plastic frame materials
10. Draw the various temple designs
11. Eye measurements for dispensing a Kryptok bifocal lenses

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 01-Dec-2023

Time: Three Hours **Max. Marks: 80 Marks**

DISPENSING OPTOMETRY OCCUPATIONAL OPTOMETRY
SECTION B – OCCUPATIONAL OPTOMETRY (40 MARKS)
(REVISED SCHEME – 3)
Q.P. CODE: 3126

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3125 and 3126 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe in detail about role of an optometrist in community eye camp.
2. What is the difference between acid burn and alkali burn? Management of each in details.
3. What is the vision standard for different profession like drivers, Indian Air Force, Navy, Army and Railway.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

4. Write about different occupational hazards and management for that.
5. What is CVS? What are the causes and management of it?
6. Short note on factories act rules 1948.

SHORT ANSWERS **5 x 2 = 10 Marks**

7. Personal protective equipment.
8. Target disease of vision 2020.
9. Objectives of NPCB.
10. Definition of illumination. What are the types of lamps?
11. Advantages of filters for pilots.

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III Year B.Sc. Optometry Degree Examination - 04-Dec-2023

Time: Three Hours **Max. Marks: 80 Marks**

Paediatric Optometry, Binocular Vision and Advanced Optometry
(Revised Scheme – 3)
Q.P. CODE: 3127

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer Any Three) **3 x 10 = 30 Marks**

1. Explain in detail about the clinical examination procedures and the sequence of testing for a child of 3 year's old coming for a routine eye examination with a family history of myopia for both the parents.
2. Esodeviations - clinical examination, classification and management.
3. Write in brief about nystagmus.
4. Write in brief about amblyopia.

SHORT ESSAYS (Answer Any Six) **6 x 5 = 30 Marks**

5. Tests for binocular single vision.
6. Strabismus - definition, broad classification and methods of evaluation.
7. Stereopsis.
8. What do you understand by the process of emmetropisation? Explain about the pre-requisites for the same.
9. Longitudinal Horopter.
10. Panum's space.
11. Write in detail on the facial and spectacle anthropometric measurement to be taken and considered while selecting and dispensing a spectacle frame in pediatric population.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Aneisokonia.
13. Pre-requisites of Binocular vision.
14. Types of ARC.
15. Retinal rivalry.
16. Synergists.
17. What is Ectopia Lentis? In which syndromes are they usually seen?
18. What do we mean by Pseudomyopia? List down the management options.
19. What are the visual acuity charts available for testing a toddler?
20. Give examples of Intraocular muscles.
21. Crossed diplopia.

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III Year B.Sc. Optometry Degree Examination – 24-Nov-2023

Time: Three Hours **Max. Marks: 100 Marks**

LOW VISION AIDS AND GERIATRIC OPTOMETRY (RS-4)
Q.P. CODE: 3351

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Define low vision aids. Write about non-optical devices in low vision
2. Assessment and management of a 9-year-old school going child with albinism
   OR
   Enumerate members of low vision team and their role in low vision patients

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Assessment of functional vision in low vision patient
4. Difference between hand and stand magnifiers
5. Refractive changes and life modifications occurring due to diabetes
   OR
   Psychological and physiological changes undergone by a geriatric population
6. Myopic degeneration
7. CCTV
8. Optic atrophy management by low vision devices
9. Braille
10. Briefly discuss contact lens dispensing in geriatric population
    OR
    Categories of visual impairment
11. What are the physiologic and pathologic conditions affecting drug action in the geriatric population?
12. Structural and physiological changes of eyelid in old age

SHORT ANSWER **10 x 3 = 30 Marks**

13. Identify the type of telescope and calculate the magnification and tube length this telescope with objective lens power of + 30.00 DS and eye piece power of + 26.00 DS
14. PSRT in low vision patients
15. Speaking software for blind
16. Describe about corning lenses
17. Define visual, impairment and low vision
18. What is CBR?
19. Glare control measures
20. JND technique
21. Arcus senilis
22. Aging changes in Retina

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III Year B.Sc. Optometry Degree Examination – 27-Nov-2023

Time: Three Hours **Max. Marks: 100 Marks**

CONTACT LENS (RS-4)
Q.P. CODE: 3352

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Briefly explain common soft contact lens complications, causes and its management
2. How would you assess the centration, movement and tightness of soft contact lens on eye? What is the significance?

   OR

   List the tear and non-tear related deposits. Write in detail about same

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Write about different bifocal and multifocal contact lens for presbyopes
4. Write a note on Hydrogen peroxide system
5. Write in detail about manufacturing of soft contact lens

   OR

   Explain indication of therapeutic contact lens
6. Advantages and disadvantages of RGP contract lens
7. Explain about pre fitting parameters prior to fitting contact lens in child
8. Write about fitting philosophies for correcting keratoconus
9. Write a note on management and prevention in case of corneal neovascularization
10. Explain etiology, sign and management of SEAL

    OR

    Note on Ideal contact lens material properties
11. Briefly explain about dynamic and prism ballast stabilization technique with diagram
12. Write a note on: a) BOZR b) Peripheral curves c) Central thickness d) Edge lift

SHORT ANSWER **10 x 3 = 30 Marks**

13. Soft contact lens brands available in India
14. Piggy back contact lens
15. Write about prosthetic contact lens
16. Multipurpose solution
17. Explain lipid and protein deposits
18. Explain about – a) Continuous wear C.L b) Extended wear C.L c) Disposable C.L
19. List the FDA classification of soft C.L. Give examples for each group
20. Extended keratometry
21. Accommodation and contact lens
22. Video keratography

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III Year B.Sc. Optometry Degree Examination – 29-Nov-2023

Time: Three Hours **Max. Marks: 100 Marks**

RESEARCH METHODOLOGY AND STATISTICS (RS-4)
Q.P. CODE: 3353

(Q.P contains two pages only)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Given below is the frequency distribution (10 mg/dl intervals) of blood levels – rural village, 1996. Calculate the mean, standard deviation and variance for the given data

Blood lead level (mg/dl)	Frequency
0-9	0
10-19	1
20-29	2
30-39	3
40-49	6
50-59	8
60-69	6
70-79	9
80-89	2
90-99	0
100-110	2
Total	**39**

2. Define – rate, ratio, proportion, incidence and prevalence

   OR

   What are the steps involved in research process?

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Draw a normal curve and point out its characteristics
4. Calculate mean, median, mode of the following data
   240, 260, 290, 245, 255, 247, 272, 263, 277 and 251
5. Explain concept of reliability and validity

   OR

   Merits and demerits of probability and non probability sampling
6. Distinguish between census and survey
7. Explain the properties of various scales of measurements
8. **Describe organization of data, Explain when to use Histogram and frequency table ?**
9. What is type I and type II error?
10. Define Inter-quartile range with formula

    OR

    Explain component and uses of health information system
11. Explain sample registration system (SRS)
12. Define sampling, principle and explain cluster random sampling

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SHORT ANSWER **10 x 3 = 30 Marks**

13. Give the name of the methods of testing or hypothesis
14. Merits and demerits of interquartile range
15. Define census
16. What do you understand by bar diagram and a sub-divided bar diagram?
17. What are the requisites of reliable data?
18. Skewness and kurtosis
19. Define correlation
20. Role of statistics in research
21. What are random number tables?
22. What is epidemiological triad?

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III Year B.Sc. Optometry Degree Examination - 01-Dec-2023

Time: Three Hours **Max. Marks: 100 Marks**

Section A: SYSTEMIC DISEASES (50 Marks) (RS-4)
Q.P. CODE: 3354

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3354 and 3355 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No.1 choice) **1 x 10 = 10 Marks**

1. Discuss the etiology, pathology, clinical features, investigations, complications and treatment of diabetes mellitus. Explain the ocular manifestations of diabetes mellitus.
   OR
   Explain the pathophysiology, classifications, diagnosis complications and management of Rheumatic fever.

SHORT ESSAYS (Question No.5 choice) **5 x 5 = 25 Marks**

2. Define neoplasm. Classify them and discuss the pathogenesis of malignant neoplasm.
3. Larva migrans and disease of Eye.
4. Explain the pathophysiology, classification and diagnosis of hypertension.
5. Discuss the prevention and treatment of genetic disorders.
   OR
   Role of nutrition in ocular health.
6. Manifestations of toxoplasmosis.

SHORT ANSWER **5 x 3 = 15 Marks**

7. Vitamin A deficiency and treatment.
8. Chemotherapy.
9. Antibodies.
10. Name thyroid hormones.
11. Health manifestation of obesity.

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III Year B.Sc. Optometry Degree Examination - 01-Dec-2023

Time: Three Hours **Max. Marks: 100 Marks**

Section B: OCULAR DISEASES (50 Marks) (RS-4)
Q.P. CODE: 3355

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3354 and 3355 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No.1 choice) **1 x 10 = 10 Marks**

1. Discuss the clinical picture, diagnosis and current approach to the management of fungal keratitis.
   OR
   How would you evaluate the integrity of the visual pathways? Discuss briefly about localization of their lesions.

SHORT ESSAYS (Question No.5 choice) **5 x 5 = 25 Marks**

2. Discuss the differential diagnosis and management of bilateral pan-uveitis.
3. Give a brief idea about diabetic maculopathy.
4. Discuss differential diagnosis and management of unilateral orbital cellulitis.
5. Briefly explain about retinal detachment and its causes.
   OR
   Discuss the differential diagnosis and management of unilateral ptosis.
6. Write short notes on: a) Ocular sarcoidosis b) Acquired ptosis

5 x 3 = 15 Marks

SHORT ANSWER

7. Vogt's Striae.
8. Proptosis.
9. Ant staphyloma.
10. The treatment of Choroidal haemorrhage.
11. Kochar syndrome.

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III Year B.Sc. Optometry Degree Examination - 04-Dec-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION A : PRACTICE MANAGEMNT AND LAW IN OPTOMETRY (RS-4) (50 Marks)
Q.P. CODE: 3356

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3356 and 3357 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No.1 choice) **1 x 10 = 10 Marks**

1. Enumerate the important points regarding medical negligence and its remedies.
   OR
   What is propaganda and advertising? Difference between PR and publicity.

SHORT ESSAYS (Question No.5 choice) **5 x 5 = 25 Marks**

2. What are the advantages and disadvantages of an ethical code?
3. Enumerate the importance of press conference.
4. Write five principles of insurance.
5. Write the practice implied in any five foreign countries for optometry practice.
   OR
   What are the methods of public relation?
6. Inventory control and its importance.

SHORT ANSWER **5 x 3 = 15 Marks**

7. Define ethics. Write the important kinds of ethics.
8. Define trial balance.
9. Define negligence.
10. Menton the chief contents of medical records.
11. What is petty cash book?

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III Year B.Sc. Optometry Degree Examination – 04-Dec-2023

Time: Three Hours **Max. Marks: 100 Marks**

SECTION B: OCCUPATIONAL OPTOMETRY (RS-4)
Q.P. CODE: 3357

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note : Both QP Codes 3356 and 3357 are to be answered within total duration of 3 hours)

LONG ESSAYS (Question No. 1 choice) **1 x 10 = 10 Marks**

1. Define occupational health and hygiene. Explain how occupational health can be monitored
   OR
   How to reduce the various non mechanical and mechanical injuries in society?

SHORT ESSAYS (Question No. 5 choice) **5 x 5 = 25 Marks**

2. Role of optometrist in occupational safety
3. Write in briefly the ocular effect of IR and UV exposure
4. Write about acid and alkali burns
5. Write a note on effect of visual display units on eye
   OR
   Explain in detail about personal protective equipment for different occupation
6. Explain prevention of occupational disease

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

7. Occupation where illumination is important
8. Write the advantages and disadvantages of UV rays
9. Vision standards requirement for drivers
10. Safety goggles
11. What is the disadvantage of contact lens in working place?

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