Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

CEVS and Optometric Instruments

Q.P. CODE: 1633

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Four) 4 x 10 = 40 Marks

1. What is History taking? What are the benefits? How you are going to take history in patient complaining of Headache?
2. Define keratometry. Explain instrumentation theory and clinical uses of the same.
3. Write briefly about pediatric visual acuity testing.
4. Explain the instrumentation theory of binocular indirect ophthalmoscope.
5. Write the principle used in Retinoscopy. Write about different types of retinoscopes.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

6. Write a short note on keratoscopy.
7. Write a short note on gonioscopy.
8. Explain stages of FFA.
9. Write note on phoropter. Compare between trial frame and phoropter.
10. Name the illumination techniques used in slit lamp procedure. Explain any two of them.
11. Explain the theory of using pseudoisochromatic test plates to check color vision.
12. Define optometer. Discuss about various types of optometer in detail.
13. Write about intraocular pressure checking with the help of schiotz tonometers.
14. Write about log mar and snellen visual acuity chart.

SHORT ANSWERS 10 x 2 = 20 Marks

15. Vernier acuity
16. Why do we use blue filter in slit lamp?
17. Mention the boundaries of visual field.
18. What is one position Keratometer? Give an example.
19. Explain the meaning of 24-2 and 30-2 in Humphrey visual field testing.
20. Draw a normal A-scan graph.
21. Name the places of putting electrodes in ERG procedure.
22. Name the accessories available with a normal trial case.
23. Why do we use pinhole?
24. Advantages of NCT

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

Microbiology and Pathology & Pharmacology

Section A: Microbiology and Pathology - 50 Marks

Q.P. CODE: 1634

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1634 and 1635 are to be answered within total duration of 3 hours)

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

1. Give an account of Gram Positive bacteria causing eye infections.
2. Give an account of fungus causing eye infections.
3. Define Anemia. Classification of Anemia and explain Iron Deficiency Anemia.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

4. Anaerobic Bacterial culture methods
5. Cytomegalo virus
6. Predisposing factors of candidiasis
7. Describe Shock.
8. Conjunctivitis

SHORT ANSWERS 5 x 2 = 10 Marks

9. Name two Hemoparasites.
10. Name two Sexually transmitted diseases.
11. Name two infections caused by Herpes Virus.
12. Name any two Bleeding Disorder.
13. Define Antiseptics.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours Max. Marks: 100 Marks

Microbiology and Pathology & Pharmacology

Section B: Pharmacology - 50 Marks

Q.P. CODE: 1635

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1634 and 1635 are to be answered within total duration of 3 hours)

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

1. Explain various factors modifying drug action.
2. Classify Antihypertensive drugs. Enumerate the therapeutic uses and adverse effects of ACE inhibitors.
3. Explain the various dyes in Ocular Diagnostics.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

4. Drug Antagonism
5. Drug therapy in Glaucoma
6. Therapeutic uses of Morphine
7. Isoniazid
8. Metformin

SHORT ANSWERS 5 x 2 = 10 Marks

9. Define Teratogenicity. Give one example.
10. Name two coagulants.
11. Mention two therapeutic uses of Adrenaline.
12. Vitamin A
13. Name two antifungals used in ocular fungal infections.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - MAR/APR 2017

Time: Three Hours | Max. Marks: 80 Marks

Optometrics Optics

Q.P. CODE: 3111

Revised Scheme - 3

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. Enlist the various types of lens materials. Describe the advantages and disadvantages of each.
2. Mention the various parts of a frame with the help of a diagram. Explain the various types of frames in detail.
3. Briefly explain refraction through astigmatic lenses.
4. Find the sph-cyl equilent to the pair of cross cylindrical lens +2.0.0 D cyl @ 20^0 /+4.0 D cyl @ 80^0

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

5. Explain about Aspheric lenses in detail.
6. Briefly explain about photochromatic lens
7. Describe spherical aberration. Discuss the effect of this aberration in spectacle lenses.
8. Calculate the center thickness of Plano convex lens made in spectacle crown glass (1.523) of power of surface +10.0 D, diameter of lens is 40 mm and edge thickness is 1 mm.
9. Describe the various types of lenses which are suitable for high minus prescription.
10. Derive the approximate sag relationship $S=y^2F/2000(n-1)$
11. Explain the prismatic effect of decentration

SHORT ANSWERS 10 x 2 = 20 Marks

12. Note on effect of a prism on incident light.
13. High index lens
14. What is equiconvex lens? Write down lens maker's formula.
15. Calculate the prismatic effects produced when a -6.0 D lens is decentred 4mm up wards
16. Chromatic aberration
17. Explain about Aspheric lenses in detail.
18. What is a toric lens? Give some example.
19. What is called tool power ?explain briefly.
20. Mechanical requirement of bifocal lenses
21. Facial wrap

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - MAR/APR 2017

Time: Three Hours | Max. Marks: 80 Marks

Visual Optics

Q.P. CODE: 3112

Revised Scheme - 3

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. What is Hypermetropia? Mention its clinical features and classification with examples.
2. What is accommodation? Discuss the associated anomalies of accommodation.
3. What is myopia? Discuss the optical principle, clinical types, features and treatment options.
4. What is Sturm's conoid? Define astigmatism and write types of astigmatism with examples.

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

5. What are Perkinje images? Explain briefly.
6. Explain the optics of Retinoscopy. Briefly explain Retinoscopy in myopia.
7. Write a short note on binocular balancing and fogging technique.
8. Write a short note on range and amplitude of accommodation.
9. Write short note on duchrome test.
10. Define convergence insufficiency and excess.
11. Aphakia – its clinical features and treatment options

SHORT ANSWERS 10 x 2 = 20 Marks

12. Anisometropia
13. Define visual acuity.
14. Define constrast sensitivity.
15. Define Emmetropia.
16. Image formed by convex lens
17. Define Aniseikonia.
18. MEM Retinoscopy
19. Principle of pin hole
20. Use of JCC
21. Convert the following in feet system (a) 6/18 (b) 6/9.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

CEVS and Optometric Instruments

Q.P. CODE: 3113

Revised Scheme - 3

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. Define Tonometry. With the help of diagram, explain the principles used in Tonometry. Write shortly on applanation Tonometry.
2. Write about ophthalmic Ultrasonography.
3. Write about direct ophthalmoscopy, its theory and its use.
4. Briefly write on slit lamp and illumination system.

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

5. Write about field of view and image formation of binocular indirect ophthalmoscope.
6. Write note on slit lamp accessories.
7. Write short note on orbscan.
8. Short note on trial case
9. Write about common color vision defects.
10. Write a note on tangent screen visual field testing.
11. Write about hand neutralization and lens gauge.

SHORT ANSWERS 10 x 2 = 20 Marks

12. Define Isopter.
13. What is scleral rigidity? How does it affect performing Tonometry?
14. Draw a diagram of focusing Keratometer target: (a) out of focus (b) in focus.
15. Define lensometry.
16. False negative response in visual field testing
17. Riddoch phenomenon of visual field
18. Define visual acuity.
19. Write two sources of error while doing keratometry.
20. Explain hill of vision.
21. Define VEP.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours Max. Marks: 80 Marks

Microbiology Pathology Pharmacology
Section A: Microbiology and Pathology (40 Marks)
(Revised Scheme – 3)
Q.P. CODE: 3114

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3114 and 3115 are to be answered within total duration of 3 hours)

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

1. Define Acute inflammation. Describe in detail the cellular events of acute inflammation.
2. Furnish the pathophysiologic classification of anemias. Add a note on the megaloblastic anaemia.
3. Classify the methods of sterilization of disinfection. Describe sterilization methods by autoclave.

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

4. Shock and its types: hypovolaemic shock
5. Enumerate the growth requirements of bacteria. Describe in detail the methods of aerobic culture.
6. Name the causes of bacterial keratitis. Describe the laboratory diagnosis of bacterial keratitis.

SHORT ANSWERS 5 x 2 = 10 Marks

7. Basal cell carcinoma
8. Embolism
9. Inflammatory pseudo tumour of orbit
10. Loa Loa
11. Fusarium

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II Year B.Sc. Optometry Degree Examination - APRIL 2017

Time: Three Hours Max. Marks: 80 Marks

Microbiology Pathology Pharmacology
Section B: Pharmacology (40 Marks)
(Revised Scheme – 3)
Q.P. CODE: 3115

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 3114 and 3115 are to be answered within total duration of 3 hours)

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

1. Discuss the factors that modify the action of drugs.
2. Classify the oral anti-diabetic drugs. Describe the mechanism of action and the adverse effects of sulphonylureas.
3. Classify the anti-microbials and describe the mechanism of their action.

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

4. Receptors

5. Synergism and antagonism
6. Actions of Ethyl alcohol

SHORT ANSWERS 5 x 2 = 10 Marks

7. Enema
8. Liposomes
9. Rose Bengal
10. Dantrolenne
11. Benzodiazepenes

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II Year B.Sc. Optometry Degree Examination - SEPT 2017

Time: Three Hours Max. Marks: 80 Marks

Microbiology Pathology Pharmacology

Q.P. CODE: 3115

Section B – Pharmacology (40 Marks)

Revised Scheme - 3

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note : Both QP Codes 3114 and 3115 are to be answered within total duration of 3 hours)

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

1. Mention the different types of allergic reactions and discuss their mechanisms.
2. What are the factors governing the pharmaco-kenetics of drugs? Discus in detail absorption of drugs.
3. Classify the diuretics used in ophthalmology elaborate on osmotic diuretics.

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

4. Discuss anti-diabetic drugs.
5. General and ocular complications of corticosteroid therapy
6. Write short notes on the side effects of beta blockers.

SHORT ANSWERS 5 x 2 = 10 Marks

7. Pharmacodynamics
8. Transdermal adhesive units
9. Which condition Rosa Bengal staining is preferred over fluroscen stating why.
10. Drug dependence
11. Plasma half-life

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