

First year B.Sc. Optometry Degree Examination
Model Question Paper
Anatomy
(2014 Scheme)

Time: 3 hrs

Maximum Marks: 80

- Answer all questions
- Draw diagrams wherever necessary
- Write Section A and Section B in separate answer books. Do not mix up questions from Section A and Section B

QP Code: 111013

Section A: General anatomy

Marks:40

Essay

(10)

1. Define cartilage. Mention the different types . Describe them with neat labeled diagrams.

Short notes

(3 x 5=15)

2. Blood supply of heart.
3. Transitional epithelium
4. Synovial joint

Answer briefly

(5 x 2 =10)

5. Connective tissue fibres
6. Anastomosis of blood vessels
7. Diagram of a typical neuron
8. Simple epithelia with example
9. Smooth muscle

Fill in the blanks

(5 x 1 =5)

10. The gland with both exocrine and endocrine functions is -----.
11. The major constituent of tunica media of large arteries is -----.
12. The cell providing myelin sheath in the central nervous system is -----.
13. The tissue where intercalated disc is seen is -----.
14. The largest organ in the body is -----.

(P.T.O)

Essay

(10)

1. Name the extraocular muscles. Describe the actions and nerve supply of each muscle.

Short notes

(3 x 5 =15)

2. Angle of anterior chamber
3. Layers of cornea
4. Lacrimal apparatus

Answer briefly

(5 x 2 =10)

5. Parts of conjunctiva
6. Sphincter pupillae
7. Structure of human lens
8. Draw and label the layers of retina
9. Ophthalmic artery

Fill in the blanks

(5 x 1=5)

10. The muscle which helps to open the upper lid is -----.
11. The normal depth of anterior chamber is -----.
12. Lens develops from -----.
13. Aqueous is secreted by -----.
14. The sebaceous gland related to tarsus is -----.

First year B.Sc. Optometry Degree Examination

Model Question Paper

Physiology

(2014 Scheme)

Time: 3 hrs

Maximum Marks: 80

- Answer all questions
- Draw diagrams wherever necessary
- Write Section A and Section B in separate answer books. Do not mix up questions from Section A and Section B

QP Code: 113013

Section A: General Physiology

Marks: 40

Essay

(1x10=10)

1. Define cardiac output and what is the normal value. Discuss the factors affecting cardiac output. Add a note on its regulation.

(2+1+3+4=10 marks)

Short notes

(3x5=15)

2. Intrinsic pathway of coagulation.

3. Surfactant.

4. Enterohepatic circulation

Answer briefly

(5x2=10)

5. Functions of platelets.

6. REM sleep

7. Dwarfism

8. Dead space

9. Juxtaglomerular apparatus

Fill in the blanks

(5x1=5)

10. Normal value of serum calcium.....

11. Normal arterial oxygen concentration

12. Normal resting membrane potential in a neuron

13. Normal hemoglobin value in male

(P.T.O)

14. Cells which nourish the developing sperms

QP Code: 114013

Section A: Ocular Physiology

Marks: 40

Essay

(10)

1 Draw and label the visual pathway. What is the normal intra ocular pressure. Briefly explain Glaucoma.

Short notes

(3x5=15)

2. Dark adaptation
3. Reduced eye of listing
4. Homonymous hemianopia

Answer briefly

(5x2=10)

5. Electro retinogram
6. Indirect light reflex
7. Functions of tears
8. Cataract
9. Rhodopsin

Fill in the blanks

(5x1=5)

10. The primary visual area is
11. Refractive index of cornea is..... [specify units]
12. Normal intraocular pressure is[specify units]
13. Expansion of 'LASER'
14. In argyll robertson pupil,reflex is absent.

First year B.Sc. Optometry Degree Examination
Model Question Paper
General Science
(2014 Scheme)

Time: 3 hrs

Maximum Marks: 80

- Answer all questions
- Draw diagrams wherever necessary
- Write Section A and Section B in separate answer books. Do not mix up questions from Section A and Section B

QP Code: 115013

Section A: Physics

Marks: 40

Essay

(10)

1. What is simple harmonic motion. Derive an expression for total energy of simple harmonic motion. Derive an expression for composition of simple harmonic motion in a straight line.

Short notes

(3 x 5=15)

2. Sign convention used in geometric optics.
3. Define coma and how it can be eliminated.
4. Explain the principle of holography

Answer briefly

(5 x 2=10)

5. Characteristic properties of laser
6. State Malu's law
7. Explain the third order theory
8. Focal points
9. Explain Raman scattering

Fill in the blanks

(5 x 1 =5)

10. The velocity of IR is -----.
11. LASER originated as an acronym for -----.
12. SI unit of luminosity is -----.
13. Formation of colors in thin films is due to -----.
14. The lens in human body is a ----- lens.

(P.T.O)

Essay**(10)**

1. Discuss the shapes of methane, ethane, ethene and ethyne in terms of hybridisation

Short notes**(3 x 5=15)**

2. Describe the various methods for resolution of racemic mixtures
3. Thin layer chromatography.
4. Discuss the molecular structure of benzene

Answer briefly**(5 x 2 =10)**

5. Explain the electrometric effect with example.
6. The preparation of sulphapyridine
7. Define the term elution and eluent
8. What are the biochemical functions of vitamin B12
9. Draw the optical isomers of lactic acid

Fill in the blanks**(5 x 1 =5)**

10. Homolytic fission of a covalent bond leads to the formation of -----.
11. Glucose reacts with excess of phenyl hydrazine and forms -----.
12. Carbohydrate which is essential constituent of plant cells is -----.
13. ----- is a provitamin for vitamin A.
14. ----- is a carbohydrate found in blood.
