

First Year B.Sc Optometry Degree Regular/Supplementary Examinations
February 2021
Paper II – Physiology
(2016 Scheme)

Time: 3 hrs

Max marks: 80

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers • Draw table/diagrams/flow charts wherever necessary
- Write section A and section B in separate answer books. Do not mix up questions from section A and section B.

Q P Code: 123013**Section A – General Physiology****Marks: 40****Essay:****(10)**

1. Define glomerular filtration rate and mention its normal value. Discuss factors affecting glomerular filtration rate. (2+1+7)

Short notes:**(3x5=15)**

2. Heterometric regulation of stroke volume.
3. Oxygen dissociation curve.
4. Composition and functions of pancreatic juice.

Answer briefly:**(5x2=10)**

5. Any four functions of hypothalamus.
6. Residual volume.
7. Referred pain.
8. List the important functions of middle ear.
9. Acromegaly.

One-word answer:**(5x1=5)**

10. Pace maker of human heart is.....
11. Endocrine gland secreting anti diuretic hormone.....
12. Partial pressure of carbon dioxide in arterial blood is.....
13. Cells that secrete hydrochloric acid in stomach.....
14. Deficiency of dopamine in basal ganglia causes.....

Q P Code: 124013**Section B – Ocular Physiology****Marks: 40****Essay:****(10)**

1. Describe visual pathway and effects of its lesion. (5+5)

Short notes:**(3x5=15)**

2. Dark adaptation.
3. Formation and functions of aqueous humour.
4. Trichromatic theory of colour vision.

Answer briefly:**(5x2=10)**

5. What is hypermetropia and how is it corrected.
6. Diagrammatically represent visual cycle.
7. Name the different layers of retina.
8. Name two supranuclear eye movement systems.
9. Compare rods and cones.

One-word answer:**(5x1=5)**

10. Field of vision is measured using.....
11. Translucent mucous membrane lining posterior surface of eyelids and anterior aspect of eyeball.....
12. Part of retina with maximum visual acuity is.....
13. Refractive power of normal human eye is.....(specify unit)
14. Condition resulting from loss of accommodation in old age is.....
