

First Year B.Sc Optometry Degree Examinations December 2017

Paper II – Physiology
(2016 Scheme)

Time: 3 hrs

Max 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.

Q P Code: 123013

Section A – General Physiology

Marks: 40

Essay: (10)

1. Define arterial blood pressure. Give the normal values. Explain the nervous and hormonal regulation of blood pressure. (2+2+3+3)

Short notes: (3x5=15)

2. Define erythropoiesis. Explain the factors influencing erythropoiesis.
3. Explain oxygen hemoglobin dissociation curve and factors affecting it.
4. Functions of basal ganglia

Answer briefly: (5x2=10)

5. What is cretinism. Mention two clinical features.
6. Define glomerular filtration rate. Give its normal value.
7. Draw a reflex arc and label.
8. List the enzymes of pancreatic juice.
9. Draw and label taste pathway

One word answer: (5x1=5)

10. Normal value of fasting blood glucose level
11. Normal vital capacity in adult male.....
12. Normal cardiac out put
13. Hormone which lowers the serum calcium level
14. Normal leukocyte count

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Section B – Ocular Physiology

Marks: 40

Essay: (10)

1. Define accommodation reflex. Explain the changes taking place during accommodation reflex and its neural pathway. (2+3+5)

Short notes: (3x5=15)

2. Refractive errors of the eye and their corrections.
3. Formation, circulation and functions of aqueous humor.
4. Role of extrinsic ocular muscles in the movement of eye.

Answer briefly: (5x2=10)

5. Define visual acuity and explain the principle of measurement.
6. List the functions of lacrimal gland.
7. Compare rods and cones.
8. Functions of cornea.
9. What is protonomaly and protonopia

One word answer: (5x1=5)

10. The association visual area number is
11. The refractive index of lens is ----- (Specify unit)
12. Normal intraocular pressure is(specify unit)
13. One diagnostic test for color blindness is-----
14. Field of vision is measured using
