

**First Year B.Sc Optometry Degree Supplementary Examinations May 2022
General Physiology & Ocular Physiology
(2014 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 (32 Pages). Do not mix up questions from section A and section B.

Q P Code: 113013

Section A – General Physiology

Marks: 40

Essay:

(10)

1. Define erythropoiesis. Describe the stages and changes taking place during erythropoiesis.
Add a note on factors influencing erythropoiesis. (2+2+3+3)

Short notes:

(3x5=15)

2. Define blood pressure. Give the normal values. Explain the hormonal regulation of blood pressure. (1+1+3)
3. Transportation of oxygen by the blood.
4. Hormonal regulation of blood calcium.

Answer briefly:

(5x2=10)

5. Functions of bile salts.
6. Draw and label taste pathway.
7. Define glomerular filtration rate with its normal value.
8. Explain referred pain. Give one example.
9. Explain Parkinsonism. Give two major clinical features.

Fill in the blanks:

(5x1=5)

10. Cretinism is caused due to the deficiency of ----- hormone.
11. Diabetes insipidus is caused due to the hyposecretion of ----- hormone.
12. Emotion is controlled by ----- part of the brain.
13. Normal fasting blood glucose level is -----
14. Pressure and volume relationship in urinary bladder is shown by -----

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Section B – Ocular Physiology

Marks: 40

Essay:

(10)

1. Describe the visual pathway. Add a note on effect of lesion of visual pathway at
• Optic chiasma • Left optic nerve • Right optic tract (5+5)

Short notes:

(3x5=15)

2. Explain the pathway for pupillary light reflex.
3. Steps in phototransduction
4. Field of vision.

Answer briefly:

(5x2=10)

5. Glaucoma.
6. Hypermetropia.
7. Protonopia and protonomaly
8. Factors affecting Corneal Transparency.
9. Changes taking place during accommodation reflex.

Fill in the blanks:

(5x1=5)

10. The area of retina comprising of only cones is known as -----
11. The color pigment present in rod is-----
12. Myopia is corrected using -----lens.
13. One test to detect color blindness-----
14. Most important vitamin needed for normal vision is -----