

First Year B.Sc Optometry Degree Supplementary Examinations April 2018
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. Name the descending motor tracts. What are the functions of pyramidal tract. Mention the differences between upper and lower motor neuron lesion. What is hemiplegia. (2+2+6)

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

2. Describe any one pathway of blood coagulation. Add a note on anticoagulants
3. Transport of carbon dioxide from the tissues to the lungs
4. Hormones acting on the gastro intestinal tract

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

5. Nerve action potential
6. Absorption of fat soluble vitamins
7. Hormones involved in maintenance of calcium level in the blood
8. Surfactant
9. Micturition reflex

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

10. The expanded names of the hormones T3 and T4 are _____ & _____
11. Permanent methods of sterilization is called as _____ in males and _____ in females.
12. The iris and ciliary muscle of the eye contains _____ type of smooth muscle
13. The increase in sympathetic activity leads to _____ in heart rate
14. The cerebrospinal fluid is part of the _____ fluid compartment of the body

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

1. Draw and label the visual pathway. Explain the effects of various lesions in the pathway. (4+6)

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

2. Describe the structure and functions of the tear film. Add a note on dry eye
3. Functions of the extra ocular muscles supplied by the oculomotor nerve".
4. Describe the refractive errors in the young people with the help of diagrams

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

5. Photosensitive pigments
6. Draw a labeled diagram of a rod photoreceptor".
7. Binocular vision
8. Near response
9. Physiological scotoma

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

10. Binocular field of vision is necessary for the _____
11. Color blindness is inherited as _____ character
12. The visual acuity is mainly due to the presence of _____ receptors
13. The jerky movements of the eye is called as _____
14. The regeneration of _____ pigment occurs during dark adaptation
