

First Year B.Sc Optometry Degree Supplementary Examinations
March (November), 2020
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 systolic and diastolic blood pressure. Differentiate between short term and long term regulation of blood pressure and explain in detail any one mechanism. (2+3+5)

Short notes:

(3x5=15)

2. Describe the stages of erythropoiesis and mention the necessary maturation factors
3. Transport of oxygen from lungs to tissues
4. Gastric juice secretion

Answer briefly:

(5x2=10)

5. Phagocytic action of neutrophils
6. Day and night cycle in circadian rhythm
7. List the anterior pituitary hormones
8. Oxygen toxicity
9. Functions of skin

One-word answer:

(5x1=5)

10. Normal value of fasting blood glucose is
11. Pregnancy diagnostic test detects the presence of in urine
12. The two different phases of an action potential in a nerve are phase and phase
13. The pain felt in the left arm due to cardiac involvement is called aspain
14. The processes of movement of water molecules from a region of higher concentration to lower concentration is called as

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Section B – Ocular Physiology

Marks: 40

Essay:

(10)

1. Write about the functions of Extra ocular muscles. Write in about the laws governing ocular motility.

(5+5)

Short notes:

(3x5=15)

2. Discuss the features and functions of the lens of the human eye.
3. Trace the light reflex pathway. Add a note on Argyll Robertson pupil
4. Discuss the factors responsible for corneal transparency

Answer briefly:

(5x2=10)

5. Diopter
6. Draw a labeled diagram of cone
7. Rhodopsin
8. List the steps in phototransduction
9. Name the components of the tear film

One-word answer:

(5x1=5)

10. Main lacrimal gland is present in the and part of the roof of the orbit
11. Parallel rays of light do not come to a point focus with accommodation at rest in
12. The most sensitive part of the retina is called as
13. The area in retina where there is no perception to the field of vision is called as.....
14. The aqueous humor is drained through in the angle of the anterior chamber
