

## First Year BPT Degree Supplementary Examinations June 2023

## Paper II – Physiology

## (2016 Scheme)

Time: 3 hrs

Max marks: 100

- 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

## Essays

(2x15=30)

1. Explain the structure of skeletal muscle with a neat diagram. Describe in detail the mechanism of muscle contraction. Add a note on Rigor mortis.
2. Define cardiac output. What are the determinants of cardiac output and explain the regulation of cardiac output.

## Short Essays

(4x10=40)

3. Define hemostasis. Explain the coagulation process. Add a note on hemophilia.
4. Draw a neat diagram of nerve action potential and explain the ionic basis of the different phases. Briefly explain the properties of action potential.
5. Describe the origin, course and termination of pyramidal tract with a neat diagram. Add a note on differences between UMN & LMN lesions.
6. Effect of exercise on cardiovascular, respiratory and muscular systems.

## Short Answers

(10x3=30)

7. Define dead space. What are the types of dead space and give the normal values.
8. Juxtaglomerular apparatus.
9. Metabolic functions of thyroid hormones.
10. Actions of parathormone.
11. Refractory errors of eye with corrections.
12. Active Transport across cell membrane.
13. Functions of bile.
14. Brown-sequard syndrome.
15. Movements of small intestine.
16. Conductive deafness.

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