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BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DBME – FOURTH SEMESTER EXAMINATION

PHYSIOLOGICAL SYSTEMS ENGINEERING

Time : 3 Hours]   [*Total Marks* : 80

PART—A   3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the directional terms superior and inferior.

2. List the types of bones with examples.

3. State the functions of the skeletal system.

4. Name the wrist bones.

5. Define action potential of a neuron.

6. List the functions of nephron.

7. List the functions of digestive system.

8. Define pulmonary and coronary circulation.

9. List the major events in the physiology of hearing.

10. What is constriction of the pupil?

Instructions : (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain the functions of the cell.

(OR)

(b) Explain the significance of blood analysis.

12. *(a)* Explain the structure of a skeleton system.

(OR)

(b) Explain the various types of muscles.

13. *(a)* Explain the synapse and neuromuscular junction.

(OR)

(b) Draw and explain the structure of a neuron.

14. *(a)* Explain electrical activity of the heart.

(OR)

(b) Explain the structure and functions of respiratory system.

15. *(a)* Explain the structural components of the eye ball.

(OR)

(b) Explain the anatomical structure of the ear.

PART—C

10×1=10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Draw and explain the anatomy of the brain.

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