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Third Semester B.E. Degree Examination, Feb./Mar. 2022

Human Anatomy and Physiology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is Homeostasis? Discuss the negative feedback mechanism of control of body temperature with neat figure. (10 Marks)
- b. List the cells of connective tissue. Briefly discuss the types with figures and functions. (10 Marks)

OR

- 2 a. Explain the types of epithelial tissues with neat diagrams. (10 Marks)
- b. What is Action potential? With a neat figure explain the action potential waveform. (10 Marks)

Module-2

- 3 a. What is a neuron? Explain the structure of Myelinated neuron with properties. (10 Marks)
- b. Discuss the ventricles of the brain with neat figures and CSF. (10 Marks)

OR

- 4 a. With neat figures describe about the cerebrum with functions. (10 Marks)
- b. List the cranial nerves with functions. (10 Marks)

Module-3

- 5 a. With a neat diagram, explain the conduction system of heart. (10 Marks)
- b. Define cardiac cycle. Discuss the stages of cardiac cycle with neat figures. (10 Marks)

OR

- 6 a. What is Blood pressure? Describe the main control mechanism of regulation of blood pressure. (10 Marks)
- b. With neat figures describe aorta and its branches. (10 Marks)

Module-4

- 7 a. Describe the location, structure and functions of pharynx. (10 Marks)
- b. Discuss the principal lung volumes and capacities with spirogram. (10 Marks)

OR

- 8 a. Describe the structure and functions of mouth and tongue. (10 Marks)
- b. Explain the process of chemical digestion in small intestine with functions. (10 Marks)

Module-5

- 9 a. List the types of bones with examples for each. Describe the structure of long bone. (10 Marks)
- b. Explain the different parts, feature and functions of vertebral column. (10 Marks)

OR

- 10 a. List the types of synovial joint and possible movements in the joint. (10 Marks)
- b. Write short notes on: (10 Marks)
 - i) Write joint
 - ii) Elbow joint.