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Seat No. _____

No. of Printed Pages : 2

Sardar Patel University
B. Sc. Semester V Examination 2019

Physiology
US05CZOO 04

18th November 2019, Monday
10:00 am to 1:00 pm

Total Marks: 70

Q I Multiple Choice Questions.

[10]

1. Name the sheath of connective tissue that wraps around individual skeletal muscle fiber.
 - a. perimysium
 - b. epimysium
 - c. endomysium
 - d. tendon
2. Oxygen binding proteins are found in _____ muscle fiber.
 - a. haemoglobin
 - b. tropomyosin
 - c. myoglobin
 - d. all of these
3. Calcium-ion storing tubular system found in skeletal muscle is known as
 - a. sarcolemma
 - b. sarcomere
 - c. sarcoplasmic reticulum
 - d. sarcoplasma
4. Neurotransmitters are stored in _____.
 - a. cell body
 - b. synaptic vesicles
 - c. dendrites
 - d. nissal bodies
5. Which of the following involves thoracic and lumbar region of ANS?
 - a. sympathetic
 - b. parasympathetic
 - c. brain
 - d. all of these
6. The reflex which is acquired by the past experience or training is known as
 - a. conditional
 - b. tropotaxis
 - c. unconditional
 - d. none of these
7. _____ is secreted from chief cells of stomach.
 - a. HCL
 - b. pepsinogen
 - c. gastrin
 - d. insulin
8. What is the main function of bile juice in digestion?
 - a. digestion of lipid
 - b. digestion of protein
 - c. emulsification of lipid
 - d. none
9. Glucocorticoid hormones are synthesized from _____.
 - a. neurohypophysis
 - b. adrenal glands
 - c. thyroid glands
 - d. adenoypophysis
10. Which hormone is responsible for maintaining calcium and phosphate level in blood?
 - a. adrenaline
 - b. estrogen
 - c. T₃ and T₄
 - d. parathormone

(1)

[P.T.O]

QII Answer the following in short. (Attempt any Ten)

[20]

1. Give the structure of myosin protein.
2. Write about functions of muscular tissue in brief.
3. Define the term oxygen debt.
4. Enlist the names and numbers of human cranial nerves.
5. Write about morphological types of nerve fibers with diagram.
6. Draw and label the diagram of synaptic bulb.
7. Write about any four functions of pancreas.
8. Draw and label the diagram of T.S. of intestine.
9. Write about the composition of pancreatic juice.
10. Write about general functions of endocrine glands.
11. Draw and label the T.S. of adrenal glands.
12. Explain the role of hormone receptors.

Q-III a. Explain the microscopic structure of skeletal muscle fiber with labelled diagram. **[05]**

b. Describe the structure and contraction of cardiac muscle fiber. **[05]**

OR

Q-III a. Describe the contraction and relaxation of skeletal muscles by sliding mechanism. **[07]**

b. Explain the production of ATP by energy molecule in skeletal muscles. **[03]**

Q-IV Describe the structure and functions of human brain. **[10]**

OR

Q-IV a. Explain the impulse transmission on non-myelinated nerve fiber. **[05]**

b. Describe the reflex action by labelled diagram. **[05]**

Q-V a. Write a note on composition and functions of saliva. **[05]**

b. Give the composition and functions of gastric juice. **[05]**

OR

Q-V a. Explain the digestion and absorption of fat in human intestine. **[07]**

b. Describe the structure of human liver. **[03]**

Q-VI Describe the functions and abnormalities of pituitary hormones. **[10]**

OR

Q-VI Explain the mechanisms of hormone action. **[10]**