



SEAT NO: _____

NO. OF PRINTED PAGES: 2

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SARDAR PATEL UNIVERSITY

B.Sc., Vth - SEMESTER EXAM, NOVEMBER-2022

ZOOLOGY, US05CZOO22 (PHYSIOLOGY)

DATE: 11/11/2022, FRIDAY

TIME: 10am to 1pm

MARKS: 70

Q-1. MULTIPLE CHOICE QUESTIONS.

(10)

1. Which cell type helps to repair injured muscle fibers?
(a) Ganglionic cell (b) Satellite cell (c) Myotubule cell (d) Myofilament
2. Which of the following muscle gets into fatigue very early?
(a) Cardiac muscle (b) Smooth muscle (c) Skeletal muscle (d) All of these
3. Which of the following ion is necessary for the contraction of muscles?
(a) Mg^{+2} (b) Na^{+} (c) K^{+} (d) None of these
4. _____ neuron transmits signals from the PNS to the central nervous system.
(a) Interneuron (b) Sensory (c) Motor (d) Ganglion
5. What is the basic unit of the nervous system?
(a) Meninges (b) Glial cell (c) Neuron (d) Cerebrospinal fluid
6. An involuntary response by the nervous system to a stimulus is known as
(a) Reflex (b) Smooth muscle (c) Motor response (d) Synapse
7. Which of the following helps in maintaining the shape of the eye?
(a) Neuroglia (b) Aqueous humor (c) Vitreous humor (d) Perikaryon
8. Which hormone is responsible for reabsorption of water?
(a) GH (b) Progesteron (c) MSH (d) ADH
9. Hyposecretion of glucocorticosteroids and aldosterone causes
(a) Dwarfism (b) Cretinism (c) Diabetes (d) Addison's diseases
10. Progesterone hormone is synthesis from
(a) Corpus luteum (b) Graffian follicals (c) Beta cells (d) Corpus albicans

Page: 1 of 2

(P.T.O.)

Q-2. ANSWER IN SHORT. (ANY TEN)

(20)

1. Name the proteins present in skeletal muscle fiber.
2. Explain the term multi unit and unitary of smooth muscle fiber.
3. Name the properties of muscle fiber.
4. Write about neuroglia found in the nervous system.
5. Draw & labeled the diagram of Human brain.
6. Write about functions of cerebrospinal fluid (CSF).
7. Draw & labeled the diagram of Human eye.
8. Name the types of plexuses of spinal nerves.
9. Write about the functions of sympathetic nervous system.
10. Define the term tropic hormone and name the pituitary tropins.
11. Explain the role of hormone receptors.
12. Write a brief note on insulin hormone.

- Q-3. (a) Explain the production of ATP by energy molecule in skeletal muscles. (6)
(b) Describe the structure of cardiac muscle fiber. (4)

OR

- Q-3. (a) Describe the microscopic structure of skeletal muscle fiber. (6)
(b) Explain the neuromuscular junction mechanism. (4)

- Q-4. (a) Explain the impulse transmission on Non-myelinated nerve fiber. (5)
(b) Write a note on types of neurotransmitters. (5)

OR

- Q-4. (a) Describe the structure of nerve fiber. (5)
(b) Write notes on any five cranial nerves. (5)

- Q-5. (a) Explain the structure & functions of Parasympathetic nervous system. (6)
(b) Explain the mechanism of hearing in Human. (4)

OR

- Q-5. (a) Describe the structure and physiology of olfaction. (6)
(b) Describe the structure of reflex arc. (4)

- Q-6. (a) Explain the action of lipid soluble hormones. (5)
(b) Write about hormones and their functions secreted from Neurohypophysis. (5)

OR

- Q-6. (a) Explain the process of synthesis and secretion of thyroid hormones. (5)
(b) Describe the functions and abnormalities of Parathyroid gland. (5)
