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SEAT NO: \_\_\_\_\_

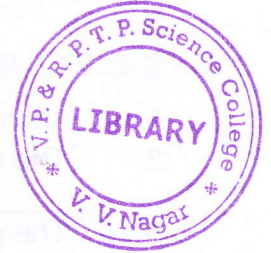
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SARDAR PATEL UNIVERSITY

B.Sc., V-SEMESTER EXAM, NOVEMBER-2021

ZOOLOGY, US05CZOO22 (PHYSIOLOGY)



DATE: 24/11/2021, WEDNESDAY

TIME: 3pm to 5pm

MARKS: 70

**Q-1. MULTIPLE CHOICE QUESTIONS.**

**(10)**

1. The smooth muscles are found in walls of  
(a) Urinary bladder (b) Blood vessels (c) Alimentary canal (d) All of these
2. Which of the following is the contractile protein of a muscle?  
(a) Tubulin (b) Myosin (c) Tropomyosin (d) All of these
3. Calcium-ion storing tubular system found in skeletal muscle is known as  
(a) Sarcoplasma (b) Sarcomere (c) Sarcoplasmic reticulum (d) Sarcolemma
4. In our body involuntary actions are controlled by medulla in  
(a) Hindbrain (b) Forebrain (c) Spinal Cord (d) Midbrain
5. The white fatty substance that coats axons to increase signal speed is  
(a) Myelin (b) Microfibrils (c) Dendrites (d) Adipocytes
6. How do neurons communicate with one another?  
(a) Electrically (b) Chemically (c) (a) & (b) both (d) None of these
7. Which one of the following involved thoracic & lumbar region of ANS?  
(a) Sympathetic (b) Parasympathetic (c) Brain (d) All of these
8. External ear is the characteristics of  
(a) Amphibians (b) Reptiles (c) Aves (d) Mammals
9. Which one of the following glands is a heterocrine gland?  
(a) Liver (b) Pancreas (c) Ovary (d) Thyroid
10. Which hormone is responsible for maintain calcium & phosphate level in the blood?  
(a) Adrenalin (b) Estrogen (c) T<sub>3</sub> & T<sub>4</sub> (d) Parathormone

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(P.T.O.)

**Q-2. FILL IN THE BLANKS AND TRUE OR FALSE.**

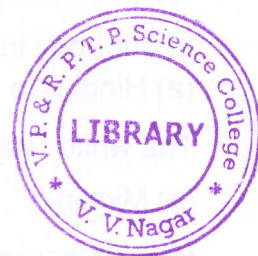
(8)

1. Intercalated discs are present in \_\_\_\_\_ muscle fiber.
2. The cells of nervous tissue that are not neurons but that assist neurons are called \_\_\_\_\_.
3. The ganglia of the \_\_\_\_\_ division are closer to the spinal cord.
4. Glucocorticoids is synthesis from \_\_\_\_\_ gland.
5. A cord of connective tissue that attaches skeletal muscle to the bone is known as sarcomere. (True or False)
6. The X- cranial nerve is known as vagus nerve. (True or False)
7. The inner most coat of the Human eyeball is known as sclera. (True or False)
8. Progesterone hormone is synthesis from Corpus albicans. (True or False)

**Q-3. ANSWER IN SHORT (ANY TEN).**

(20)

1. Name the properties of muscle fiber.
2. Write about the significance of creatine phosphate found in muscle fiber.
3. Write about oxygen debt in muscle fiber.
4. Enlist the any four numbers and names of the cranial nerves.
5. Write about myelinated nerve fiber.
6. Write about acetyl choline neurotransmitter.
7. Draw & labeled the diagram of reflex arc.
8. Enlist the name of taste buds present in Tongue.
9. Name the types of plexuses of spinal nerves.
10. Explain the term feedback control with example.
11. Give the outline of chemical classification of hormones.
12. Draw & labeled the T.S. of Adrenal gland.



**Q-4. ANSWER IN DETAIL. (ANY FOUR)**

(32)

1. Describe the microscopic structure & contraction of smooth muscle fiber with labeled diagram.
2. Explain the contraction & relaxation of Skeletal muscles by sliding mechanism.
3. Describe the microscopic structure of nerve fiber with labeled diagram.
4. Describe the structure and functions of Human fore brain & mid brain.
5. Explain the structure of Human eye with labeled diagram.
6. Explain the structure & functions of Sympathetic nervous system.
7. Explain the action of water soluble hormones.
8. Describe the hormones and their functions secreted from Adenohypophysis.