

SEAT No. \_\_\_\_\_

No. of Printed Pages : 2

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Sardar Patel University  
Fifth semester (TY.Bsc) , Zoology  
US05CZ0022 (Physiology)

Date: 26.12.2020

Time: 2-4 pm

Day: Saturday

Marks: 70

Q.1. Multiple choice questions:

10

- i. Structural and functional unit of skeletal muscle is known as  
(a) Sarcoplasm (b) Sarcomere  
(c) Sarcoplasmic reticulum (d) Sarcolemma
- ii. Name of the sheath of the connective tissue that wraps around individual muscle fibers is?  
(a) Perimysium (b) Epimysium  
(c) tendon (d) endomysium
- iii. How many pairs of spinal nerves are there?  
(a) 12 (b) 20  
(c) 30 (d) 31
- iv. How many neurons are there in an adult brain?  
(a) 100million (b) 10 billion  
(c) 10 million (d) 100 billion
- v. Which part of the brain is known as emotional brain?  
(a) Epithalamus (b) Limbic system  
(c) Broca's area (d) Corpus callosum
- vi. A loop of nerve is called as?  
(a) Cervical plexus (b) Branchial plexus  
(c) Ansacervicalis (d) None of these
- vii. Olfactory receptors are also called as?  
(a) Chemoreceptors (b) Mechanoreceptors  
(c) Photoreceptors (d) None of these
- viii. The second layer of eye is called as?  
(a) Sclera (b) Choroid layer  
(c) Retina (d) None
- ix. Which of the following is a liquid soluble hormone?  
(a) cortisol (b) Melatonin  
(c) Prostaglandin (d) Secretin
- x. Which gland maintains the body biological clock?  
(a) Pituitary (b) Parathyroid  
(c) Adrenal (d) Pineal

[1]

[P.T.O.]

Q.2. Fill in the blanks:

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- i. In muscle fibers.....is the oxygen binding protein.
- ii. Medulla oblongata controls.....function.
- iii. ....pairs of spinal nerves
- iv. Pancreases is a .....

State true or false:

- v. Smooth muscle tissue has more power of regeneration than cardiac muscle.
- vi. Bipolar neurons are found in retina of eye and inner ear.
- vii. Spinal nerves are part of PNS.
- viii. Secretin hormone stimulates secretion of bile and pancreatic juice.

Q.3. Short answer questions. Write any ten.

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- i. Draw and label cardiac muscle fiber.
- ii. write in brief creatine phosphate .
- iii. What is muscle fatigue?
- iv. What are neurotransmitters?Name any four.
- v. Write the functions of CSF.
- vi. Name the cranial nerves with their order number.
- vii. Define conditioned reflex.
- viii. List the name of organs receiving sympathetic nerves.
- ix. Write a note on special sense
- x. Draw T.S. Pancreases and label it.
- xi. List the functions of hormones.
- xii. Write the role of hormone receptors.

Q4. Long questions . Answer any four.

[ 8x4=32 ]

- i. Write a brief account of regeneration of muscle tissue.
- ii. Describe properties of muscle tissue.
- iii. Describe the structural classification of Neurons.
- iv. Describe the structure and functions of Medulla oblongata .
- v. Describe autonomous nervous system of mammals. Give diagram.
- vi. Write about Cataracts and Glaucoma disorders.
- vii. Describe hormonal disorder of thyroid glands.
- viii. Describe mechanism of hormone action.

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