

GREENLAWNS SCHOOL, WORLI
TERMINAL EXAMINATION - 2024
BIOLOGY

Std: VIII

Marks: 80

Date: 27/09/2024

Time: 2 hours

Attempt all questions. Diagrams to be drawn with a pencil.

Figures to the right indicate the marks []

Q I) Choose one correct answer to the questions from the given options: [10]

- a. The hormone that raises the sugar level in blood is:
(i) Insulin (ii) Glucagon (iii) Adrenaline (iv) Cortisone
- b. The number of pairs of cranial nerves found in humans is:
(i) 10 (ii) 12 (iii) 25 (iv) 31
- c. Lichens are a good example of:
(i) Predation (ii) Parasitism (iii) Symbiosis (iv) All
- d. The process through which food is transported in plants is known as:
(i) Diffusion (ii) Transpiration (iii) Osmosis (iv) Translocation
- e. Which of the following is not a consumer?
(i) Omnivores (ii) Herbivores (iii) Autotrophs (iv) Decomposers
- f. Thyroid-stimulating hormone (TSH) is secreted by:
(i) Thyroid (ii) Pancreas (iii) Adrenal (iv) Pituitary
- g. The condition of the heart when blood flows through the blood vessels with a force greater than normal is known as:
(i) Hypertension (ii) Heart attack (iii) Cardiac arrest (iv) Palpitations
- h. Cerebral hemispheres are the centers of:
(i) Taste (ii) Smell (iii) Balance (iv) Thinking
- i. Which of the following macro-nutrient is more abundant in growing tissues and is also involved in the opening and closing of stomata:
(i) Nitrogen (ii) Potassium
(iii) Phosphorus (iv) Iron
- j. The opening of the right atrium into the right ventricle is guarded by the:
(i) Tricuspid valve (ii) Bicuspid valve
(iii) Semilunar valve (iv) SA Node

Q II) Correct the statements by changing the underlined words, if required: [5]

- a. The sensation travelling through the nerve is called stimulus.
- b. Flesh eating animals can also be described as secondary consumers.
- c. Over secretion of thyroxine lowers the metabolic rate of the body.
- d. The blood on the right side of the heart never mixes with that on the left side of the heart.
- e. Lymph is primarily responsible for transporting respiratory gases, nutrients

and hormones throughout the body.

Q III) Fill in the blanks: [3]

- The movement of molecules-gas, liquid or solid from higher concentration to lower concentration is called _____.
- _____ is a nematode parasite which depends on two intermediate hosts (a snail and a fish) to complete its life cycle.
- The gland which acts as both exocrine and endocrine gland is _____.

Q IV) Match the following: [6]

- | | |
|---|----------------------|
| a. Absorption of minerals from the root | i. Testes |
| b. Absorption of Soil water | ii. Tongue |
| c. Prolactin | iii. Osmosis |
| d. Androgens | iv. Active transport |
| e. Sensory nerve | v. Mammary gland |
| f. Mixed nerve | vi. Optic nerve |

Q V) Complete the correlation: [5]

- Blood group O: universal donor :: _____: Universal recipient
- Jim Corbett National Park : _____ :: Jaladpara Sanctuary: Rhinoceros
- _____ : infant :: Myxoedema : Adult
- Cell wall: freely permeable :: cell membrane: _____
- Muscular co-ordination: Cerebellum :: Breathing : _____

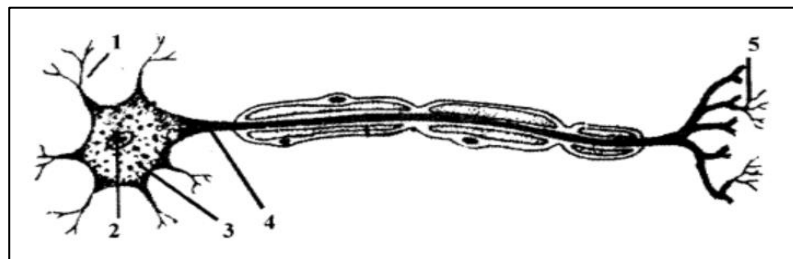
Q VI) Define the following terms: [5]

- | | |
|----------------|-----------------------------|
| a. Ecosystem | d. Transportation in plants |
| b. Reflex arc | e. Tissue fluid |
| c. Adolescence | |

Q VII) Distinguish between the following with reference to what is stated within brackets: [5]

- Xylem and Phloem (conducting cells)
- Lymph and Blood (components)
- Receptor and Effector (location)
- Food chain and Food web (meaning)
- Oestrogen and Testosterone (type of hormone)

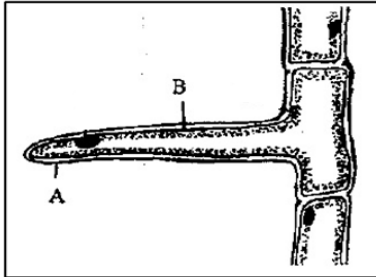
Q VIII A) Observe the figure given below and answer the questions that follow:



- Identify the structure shown and mention its two main parts. [1½]
- Label the parts '1', '2' and '5'. [1½]
- Which part contains myelin sheath? How long is it usually? [2]

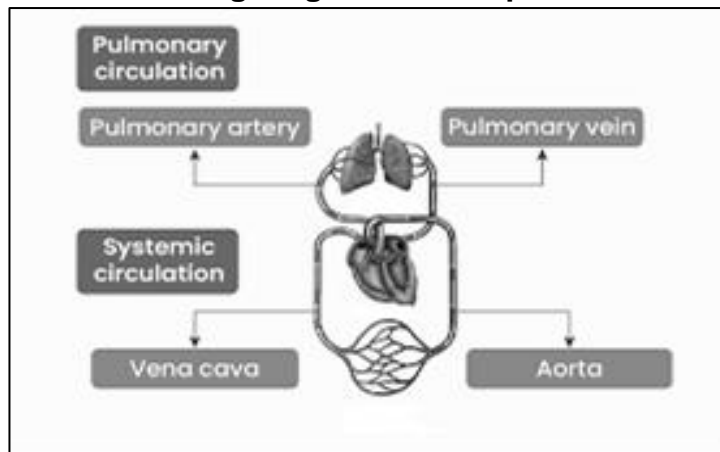
- d. Define synapse and discuss the role that it plays in the transmission of a nerve impulse. [2]

Q VIII B) Observe the diagram of a root hair given below and answer the questions that follow:



- a. Which type of cell of the root shows this kind of an extension? [1]
 b. Label the parts 'A' and 'B'. [1]
 c. What is osmosis? [1]
 d. How does the concentration of the cell sap promote water absorption? [1]

Q VIII C) Answer the following diagram-based questions:



- a. Define the organ system being shown in the above diagram. [1]
 b. Which is the main organ of the system shown? How many times does blood pass through this organ in humans? [1]
 c. What do pulmonary artery and pulmonary veins carry and from where? How are they different from coronary artery and coronary veins? [3]

Q VIII D) Copy and complete the table given below: [5]

S.No	Hormone	Source	Function
1.	Growth Hormone		
2.		Thyroid	
3.	Adrenaline		
4.			Adapts the body to stress, influences carbohydrate, fat and protein metabolism
5.	FSH		

Q IX) Answer the following questions:

- a. Explain the 'Pyramid of Biomass' in a certain forest with suitable examples. [2]
- b. Where are Islets of Langerhans found? Name the two hormones that they secrete and the disease associated with insufficient secretion of any one hormone. [2]
- c. What is the location of SA node? Why is it termed 'natural pacemaker of the human heart'? [2]
- d. Write down any two functions of the spinal cord. [2]
- e. Discuss any two factors that increase the rate of transpiration in plants. [2]

Q XA) Give scientific reasons for the following:

- a. Playing a musical instrument is a type of acquired reflex. [1]
- b. Adolescent boys and girls undergo various emotional swings. [1]
- c. The auricles are the "receiving chambers" while ventricles are the "distributing chambers". [2]
- d. Root pressure is one of the forces which contributes to the ascent of sap through the stem into the leaves. [2]
- e. Plants are the only link in the food chain of environment. [2]

Q X B) Label the endocrine glands as shown in the diagram below: [2]

