ST. LAWRENCE HIGH SCHOOL

THIRD TERM - 2019

Sub : LIFE SCIENCE | Class : VII | F.M. : 90

Duration : 2 HR 30 MIN | Date : 19.11.19

GROUP - A

1. MCQ [1x5=5]

1.1 Which substance/s is/are expelled in urine:

a) Salts
b) Urea
c) **Uric acid**
d) All of these

1.2 Red blood cells are broken down in the:

a) Lungs b) Skin c) **Liver** d) Kidneys

1.3 Urinary tract infections can affect:

a) Only the urinary bladder
b) Only the kidneys
c) **Both urinary bladder and kidneys**
d) None of these

1.4 Mixed nerves carry impulses:

a) To the sensory organs
b) To the CNS
c) **To and from the CNS**
d) To the effector organs

1.5 The neurons that carry impulses from the body to the brain are called:

a) **Sensory neurons**
b) Sense organs
c) Motor neurons
d) Effector organs

2. State true or false: [1x6=6]

2.1 Dead red blood cells are broken down only in the liver. **FALSE**
2.2 Kidney stones occur only in the kidneys. **FALSE**
2.3 Amino acids are broken down to form urea. **TRUE**
2.4 A nerve cell is called a cyton **FALSE**
2.5 Information passes from one neuron to another at a synapse **TRUE**
2.6 Cerebrospinal fluid surrounds the skull **FALSE**

3. Fill in the blanks: [1x7=7]

3.1 The sweat glands are situated in the **SKIN**
3.2 Blood enters a kidney through a **RENAL ARTERY**
3.3 Urine passes out of the bladder through the **URETER**
3.4 **E. COLI** is the most common cause of urinary tract infection.
3.5 The **MENINGES** are membranes surrounding the brain and the spinal cord.
3.6 The anterior part of the brain is called the **CEREBRUM**
3.7 The three regions of the brainstem are medulla oblongata, **CEREBELLUM** and midbrain.

4. Name the following: [1x4=4]

3.8 Which part of the cell is called the 'brain of the cell' **NUCLEUS**
3.9 Which cell organelle is called the 'power house of the cell' **MITOCHONDRIA**
3.10 Which cell organelle is known as the 'suicidal bag of the cell' **LYSOSOME**
3.11 Who discovered golgi bodies? **CHAMILLO GOLGI**

5. Match the following: [1x3=3]

Column A	Column B
5.1 Sweat glands	b) SKIN
5.2 Urea	c) EXCRETED IN URINE AND SWEAT
5.3 Kidney stones	a) URIC ACID

GROUP – B

6. Answer the following question (all) [2x5=10]

6.1 Who discovered cell and in which year? **Robert hooke in 1665**

6.2 Give two differences between RER and SER. **RER is granulated due to the presence of ribosome**

6.3 Name the two faces of golgi bodies. **Forming face and maturing face**

6.4 Name the excretory organs. **Kidney, liver, skin and lungs**

6.5 Name the two major components of the nervous system. **Brain and spinal cord**

7. Answer the following questions (any 5) [3x5=15]

7.1 What is the cell wall usually made of?

Cellulose and pectin at the main component.

7.2 Name the components of the nucleus.

Nucleolus and nuclear reticulum.

7.3 Give the main purpose of sweating.

Excretion and body temperature regulation.

7.4 What does the urinary system consists of?

Kidney, uterus, urinary bladder and urethra.

7.5 Give the functions of the urinary system.

Formation of urine, expelling uric acid, urea, salts in the form of urine. It also regulate the ionic balance and osmoregulation of the body.

7.6 Give one function of each part of the brain.

Cerebrum controls learning, cerebellum coordinates movement and medula oblongata controls involuntary functions.

7.7 Name the structural and functional unit of kidney. Give the location of the kidney. Give the shape of the kidney.

Nephron are the structural and functional unit of kidney. Kidney is located on the either side of the backbone behind the stomach. They are bean shaped.

GROUP – C

8. Answer the following questions (any 8) [5x8=40]

8.1 What are the salient features of cell theory?

1. A cell is a mass of Protoplasm containing A nucleus and bounded by a cell membrane, and, in many cases, cell wall as well.

2. Every living organism is made up of one or more cells.

3. Cells are the basic structural and functional units of all living beings.

These conclusions form the basis for a Theory called the cell theory

8.2 Describe the process through which sweat leaves the body.

Sweat is formed in sweat glands, which lie under the top layer (epidermis) of the skin. Waste products and water from the blood flowing through the capillaries in the skin pass through the walls of the capillaries into the Sweat glands. The Sweat glands have duct (tubes) that end in the pores on the skin. Sweat leaves the body through these pores.

8.3 How does diabetes affect the urinary system? How does high-blood pressure affect the urinary system?

Diabetes and high blood pressure, also cause disorders of the urinary system. Diabetes, disease in which the level of glucose in the blood is higher than normal, makes a person prone to urinary infections and can also damage the Kidneys. High blood pressure can damage the capillaries of the glomeruli and interfere with the filtration of blood.

8.4 Name the parts of a neuron.

Axon, dendron, myelin sheath, cell body are the parts of a neurone.

8.5 Name the three different types of nerves. Write the differences betweeen them.

Sensory nerve, motor nerve and mixed nerve.

Sensory nerve carries impulses to the central nervous system. The motor nerve carries impulses to the organ or muscle from the brain or spinal cord. Mixed nerve does both the work.

8.6 Write the general functions of the brain.

The brain sorts out all the information it receives and direct all our activities in accordance with this information. It stores some of the information as memory and discard the rest. It is the centre of what we call consciousness. It helps us think, learn, evaluate, analyse, make decisions, and so on. The spinal cord acts mostly according to the instructions given by the brain. However it can act on its own sometimes.

8.7 Give the location of each part of the brain. What is a synapse? Give the differences between involuntary and voluntary nervous system.

Cerebrum is a frontal part, cerebellum is located below cerebrum towards the back of the skull. Medulla oblongata is the lowest part of the brain connected with the spinal cord.

Junction point of two neurones is called synapse.

Voluntary system controls the movement and locomotion, involuntary system controls visceral muscles.

8.8 What are plastids? Name three different types of plastids. Give two differences between them.

Plastids are organelle containing pigment(colouring matter).

Chloroplast help the plant traps solar energy, which is then used to convert carbon dioxide and water to carbohydrate. All the other colours we see in plants are produced by chromoplast. Leucoplast store food like starch, protein and fat.

8.9 Give the diagram of a nerve cell and label the following parts: dendrites, myelin sheath, cyton and axon.

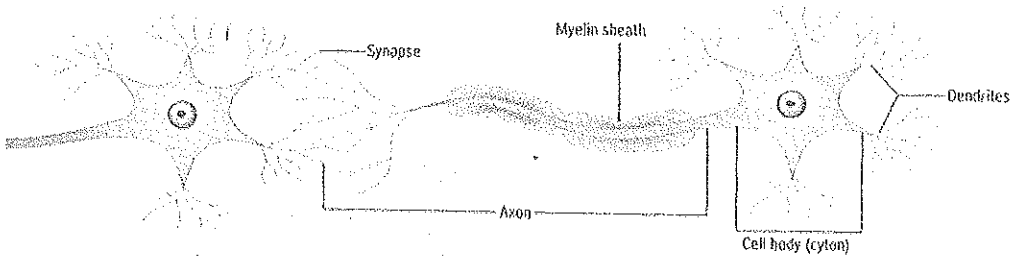

Fig. 5.2 Nerve cells are joined end to end. The junctions are called synapses.

8.10 Give five differences between the plant and animal cell.

Plant cell	Animal cell
It is enclosed by a rigid cell wall	There is no cell wall
It contains plastids	It does not have plastids
There are no centrioles	It has two centrioles
A mature cell has one or a few large vacuole	Vacuoles are not found in all animal cell. When present, they are small
Primordial utricle is present	Pridmordial utricle is absent