

Greenlawns High School
Terminal Examination 2023-24
Subject: Biology

Std: X C

Date: 04/10/2023

Time: 2 Hours

Marks: 80

- Answers to this Paper must be written on the paper provided separately.
- You will not be allowed to write during first 15 minutes.
- This time is to be spent in reading the question paper.
- The time given at the head of this Paper is the time allowed for writing the answers.
- Section A is compulsory. Attempt any four questions from Section B.

SECTION A

(Attempt all questions from this Section.)

Question.1

(15)

Choose the correct answers to the questions from the given options:

i) The movement of a plant part in response to the force of attraction exerted by the earth is called:

- a) Hydrotropism b) Geotropism c) Phototropism d) Phototropism

ii) The event which does not occur during interphase is

- a) Chromatin condenses b) Protein synthesis
c) Replication of DNA d) RNA synthesis

iii) Phototropic curvature is the result of uneven distribution of:

- a) Abscisic acid b) Ethylene c) Cytokinins d) Auxins

iv) Ciliary apparatus in the eye is a part of:

- a) Sclera b) Retina c) Conjunctiva d) Choroid

v) Which of the following in real sense is not an excretory activity?

- a) Giving out carbon dioxide b) Removal of urea
c) Passing out faecal matter d) Sweating

vi) Angina pectoris is due to:

- a) Chest pain b) Viral infection
c) Defective functioning of mitral valve d) Malnutrition

vii) Arteries in general carry oxygenated blood. Which of the following is an exception to this generalization?

- a) Coronary artery
- b) Hepatic artery
- c) Renal artery
- d) Pulmonary artery

viii) Duplicated chromosomes are joined at a point termed as _____

- a) Centrosome
- b) Centromere
- c) Centriole
- d) Chromatid

ix) Core of chlorophyll is formed by:

- a) Iron
- b) Manganese
- c) Magnesium
- d) Calcium

x) The part of the brain that controls muscular co-ordination is:

- a) Medulla oblongata
- b) Cerebellum
- c) Cerebrum
- d) Corpus callosum

xi) Sunken stomata is found in the leaves of:

- a) Trifolium
- b) Banyan
- c) Nerium
- d) Lilium

xii) LH and FSH are collectively called as :

- a) Oxytocin
- b) Somatotropins
- c) Luteotrophic
- d) Gonadotropins

xiii) The source of kidney stone is:

- a) Calcium oxalate
- b) Sodium oxalate
- c) Potassium oxalate
- d) Magnesium oxalate

xiv) Which of the following would not be considered as a sympathetic effect?

- a) Increased heartbeat
- b) Decreased Peristalsis
- c) Constriction of pupil of eyes
- d) Inhibits saliva secretion

xv) Which of the following is not a part of middle ear?

- a) Incus
- b) Stapes
- c) Tympanum
- d) Malleus

Question.2

i) Name the following:

(5)

- a) The point in which one neuron ends and other starts.
- b) A region of plant body where cell division occurs very rapidly.
- c) The tropic movement in response to the stimulus of the chemical.
- d) The pigment that gives normal pale colour to urine.
- e) The process of fruit formation without fertilization.

ii) Complete the following table:

(5)

	Structure	Location	Function
1	Palisade cells		
2	Thyroid gland		
3	Corpus callosum		
4	Semilunar valve		
5	Eustachian tube		

iii) State whether the following statements are true or false. If false re-write the correct form of the statement by changing the first word only. (5)

- Plasmolysis is the condition in which cell content is shrunken and the cell is no more 'tight'.
- Thalamus controls the body temperature.
- Haematuria is a disorder in which excess glucose passes with urine.
- Impulse is a change in an organism resulting due to stimulus.
- Cataract is a defect in which some parts of the object are seen in focus while others are blurred.

iv) Differentiate between the following on the basis of what is given in the brackets: (5)

- Rods and cones (Pigment present)
- Cushing's syndrome and Acromegaly (Hormones involved)
- Wall pressure and Turgor pressure (Definition)
- Plasma and Serum (Composition)
- Stoma and Stroma (Structure)

v) Give reasons for the following: (5)

- The wall of ventricle is thicker than the auricle.
- Sometimes medicines dropped into eyes come into the nose and even in throat.
- We urinate fewer times in summer than in winter and the urine passed is generally thicker.
- It is not possible to demonstrate respiration in a green plant kept in sunlight.
- The children of the same parents howsoever similar, are different from each other in certain aspects.

SECTION B

(Attempt any 4 questions from this Section.)

Question 3

(10)

- i) Define: Tissue fluid. (1)
- ii) What is the contraction phase of auricles called? Name the two valves that open during this phase. (2)
- iii) What is capillary? Write any one function of capillary. (2)
- iv) Write two functions of Adrenaline. (2)
- v) Draw a neat diagram of a longitudinal section of a kidney and label any four parts. (3)

Question 4

(10)

- i) Write the full form of DNA. (1)
- ii) Which disease is caused due to hyposecretion of Adrenal cortex? Give three important symptoms of the disease. (2)
- iii) What is the location of cerebellum? Write its main function. (2)
- iv) The picture A and B given below shows two individuals suffering from two different diseases due to hormonal imbalance. Study the pictures carefully and then answer the questions that follow: (2)

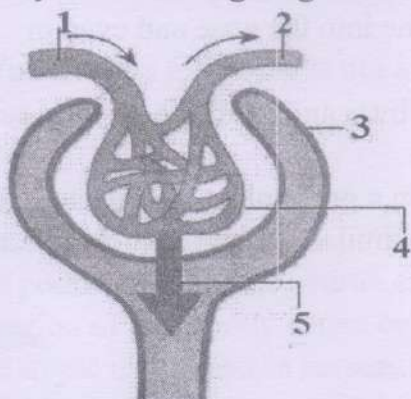


A



B

- a) Name the diseases shown in picture A and B.
- b) What is the cause of swelling in the neck in A and protrusion of the eyeballs in B?
- v) Study the following diagram and answer the questions that follow: (3)

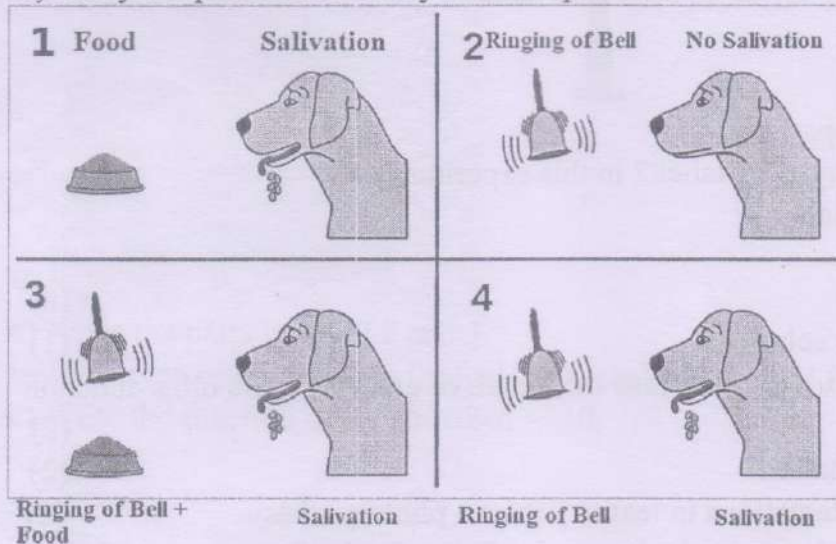


- a) Label the parts 1 and 4.
- b) What is the collective term used for 3 and 4.
- c) Name the region of the kidney where the above structure is present.

Question 5

(10)

- i) Define: Osmosis. (1)
- ii) What is transpirational pull? How it is caused? (2)
- iii) What are the two chambers of the eye? Write one function of larger chamber. (2)
- iv) Study the pictures carefully and the questions that follow: (2)



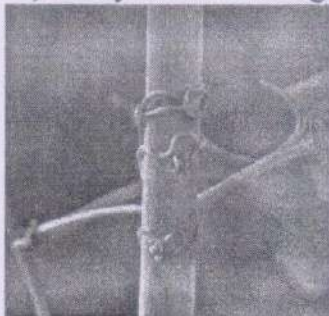
- a) What does this experiment demonstrate?
- b) Why did the dog salivate in Picture 4?

v) Draw a neat diagram of pituitary gland and label any four parts. (3)

Question 6

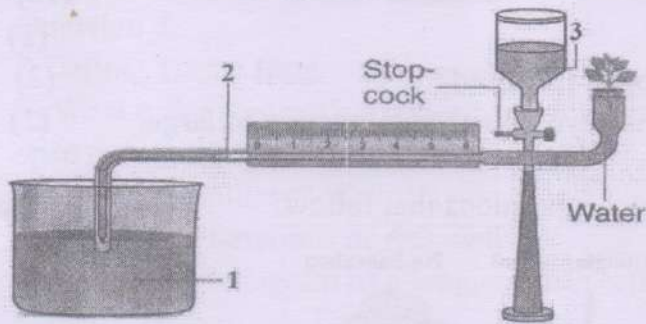
(10)

- i) Define: Tubular secretion. (1)
- ii) How rate of transpiration is affected by the humidity and the intensity of sunlight? (2)
- iii) Explain the two steps of light dependent phase of photosynthesis. (2)
- iv) Study the following diagram and answer the questions that follow: (2)



- a) Identify the type tropic movement shown in the above picture.
- b) Define the tropic movement mentioned by you in a).

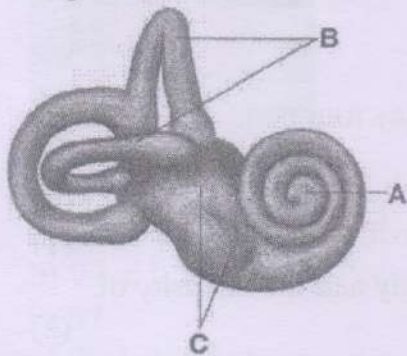
v) Study the following diagram and answer the questions that follow: (3)



- Name the above apparatus.
- What is the role played by label 2 in this experiment?
- What is the use of label 3?

Question 7 (10)

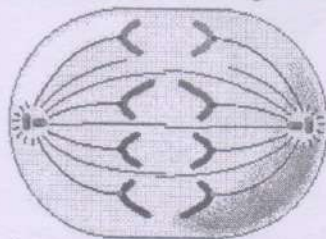
- What is Hypertonic solution? (1)
- Which hormone is used to increase the length of grapes? Write other function of this hormone. (2)
- What is dark adaptation? (2)
- Explain any two adaptations in leaf to perform photosynthesis. (2)
- Given below is the diagram of a human inner ear. Study the same and answer the questions that follow: (3)



- Name the parts labelled A and B.
- Write the two parts of C.
- What is the other name for inner ear?

Question 8 (10)

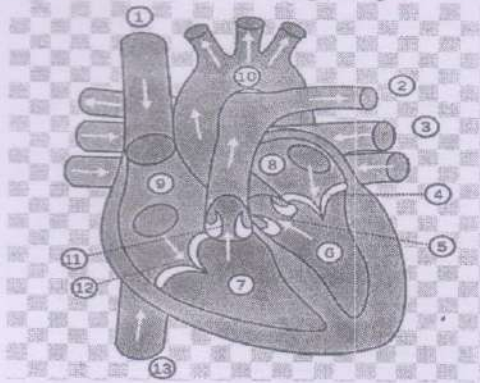
- What is crossing over? (1)
- Identify the stage of mitosis and give reason to support your answer. (2)



- Write two important functions of ethylene. (2)

iv) What is Visking bag? Where it is used? (2)

v) Study the following diagram and answer the questions that follow: (3)



a) Name the parts labelled 2 and 3.

b) What type of blood flows through part labelled as 7 and 9.

c) Write the function of part labelled as 10.