

# GREENLAWNS SCHOOL, WORLI

TERMINAL EXAMINATION: 2025-26

## BIOLOGY

Std: IX

Marks: 80

Date: 25/09/2025

Time: 2 hrs

Answers to this paper must be written on the paper provided separately. You will **not** be allowed to write during the first **10** 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**.

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### SECTION A

(Attempt **all** questions from this section)

#### Question 1

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

[15]

(Do not copy the question, write the correct answer only.)

- (i) A 14-year old girl from a hilly region visits the health clinic with complaints of swelling in the front of her neck, fatigue, and difficulty swallowing. On examination, the doctor notes an enlarged thyroid gland. What is the most likely cause of her condition?
  - (a) Deficiency of Vitamin D
  - (b) Deficiency of Iodine
  - (c) Excess intake of calcium
  - (d) Deficiency of Iron
- (ii) During winter, Hema's skin becomes dry and flaky because the glands that secrete oily substances are less active. Which glands secrete this oily substance?
  - (a) Sweat glands
  - (b) Sebaceous glands
  - (c) Endocrine glands
  - (d) Mucous glands
- (iii) A vegetable market throws all leftover peels and rotten vegetables in a pit. After some weeks, they turn into dark, crumbly soil-like material. What is this process called??
  - (a) Composting
  - (b) Incineration
  - (c) Landfills
  - (d) Recycling
- (iv) A liver cell is highly active in producing proteins. A biologist finds large numbers of ribosomes and rough endoplasmic reticulum on observing liver cell under a microscope. What are ribosomes mainly responsible for?
  - (a) DNA replication
  - (b) Energy production
  - (c) Lipid synthesis
  - (d) Protein synthesis
- (v) Which is the correct sequence of parts in human alimentary canal?
  - (a) Mouth → Stomach → Small intestine → Oesophagus → Large intestine
  - (b) Mouth → Oesophagus → Stomach → Large intestine → Small intestine
  - (c) Mouth → Stomach → Oesophagus → Small intestine → Large intestine
  - (d) Mouth → Oesophagus → Stomach → Small intestine → Large intestine
- (vi) Which of the following can make you ill if you come in contact with an infected person:
  - (a) Blood cancer
  - (b) High blood pressure
  - (c) Sneezing
  - (d) Genetic abnormalities

- (vii) A child was diagnosed with poor vision at night or darkness. What could be the disease?
- |                     |              |
|---------------------|--------------|
| (a) Beri-beri       | (c) Scurvy   |
| (b) Night blindness | (d) Pellagra |
- (viii) Assertion (A): Krebs cycle occurs in the mitochondria of a cell.  
Reason (R): It converts glucose into pyruvic acid.
- |                            |                              |
|----------------------------|------------------------------|
| (a) Both A and R are true  | (c) A is true and R is false |
| (b) Both A and R are false | (d) A is false and R is true |
- (ix) Gambusia is a fish which is being introduced into the ponds in order to check the vector borne diseases such as:
- |             |                  |
|-------------|------------------|
| (a) Malaria | (c) Chickungunya |
| (b) Dengue  | (d) All of these |
- (x) Assertion (A): Irreparable computers and other electronic goods are known as electronic wastes.  
Reason (R): Recycling is the only solution for treatment of e-waste.
- |                            |                              |
|----------------------------|------------------------------|
| (a) Both A and R are true  | (c) A is true and R is false |
| (b) Both A and R are false | (d) A is false and R is true |
- (xi) Food is mixed thoroughly with the acidic gastric juice of the stomach by the churning movements of its muscular wall. What do we call the food then?
- |           |                |
|-----------|----------------|
| (a) Bolus | (c) Biliverdin |
| (b) Chyme | (d) Pulp       |
- (xii) The first antibiotic was discovered accidentally by A while working on B.  
What are A and B?
- |                                          |
|------------------------------------------|
| (a) A – Waksman, B - Streptococcus       |
| (b) A – Fleming, B – Penicillium notatum |
| (c) A – Waksman, B – Bacillus            |
| (d) A – Fleming, B - Staphylococci       |
- (xiii) Which is not a stage of mushroom cultivation?
- |              |              |
|--------------|--------------|
| (a) Casing   | (c) Pinning  |
| (b) Spawning | (d) Cropping |
- (xiv) If the androecium is absent or non-functional, the flower is:
- |                |               |
|----------------|---------------|
| (a) Neuter     | (c) Staminate |
| (b) Pistillate | (d) Complete  |
- (xv) Which is a bile pigment?
- |                |                  |
|----------------|------------------|
| (a) Bilivedin  | (c) Bilirubin    |
| (b) Creatinine | (d) Both a and c |

## **Question 2**

- (i) Give the biological/technical terms for the following:

[5]

- |                                                                                     |
|-------------------------------------------------------------------------------------|
| (a) Network of fibres present in the nucleus.                                       |
| (b) Calyx made up of fused sepals.                                                  |
| (c) Porous tissue present in the stem of woody plants which allow gaseous exchange. |

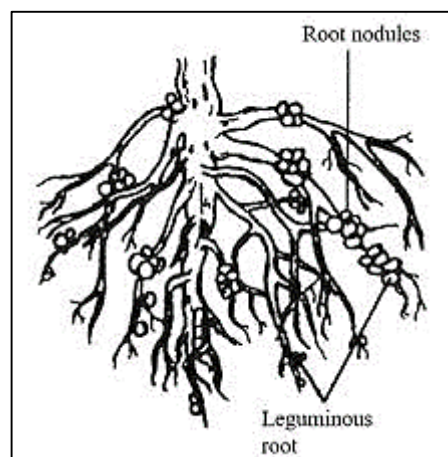
- (d) Condition in which a person suffers due to an unbalanced diet.
- (e) The science and practice of maintaining good health.

- (ii) Given below is the diagram of the roots of a leguminous plant showing nodules. [5]  
Read the information and fill in the blanks:

Root nodules in leguminous plants are specialized structures formed through a relationship with nitrogen-fixing bacteria.

A special category of soil bacteria called (a) \_\_\_\_\_ is found living in nodules on the roots of leguminous plants such as (b) \_\_\_\_\_.

Certain free-living bacteria in the soil like (c) \_\_\_\_\_ and (d) \_\_\_\_\_ use the free nitrogen of the soil and convert it to (e) \_\_\_\_\_ with hydrogen which gets converted to amino acids and nitrates, enriching the soil.



- (iii) Choose the odd term out from each of the following set of terms. Mention the category to which the remaining three belong: [5]
- (a) Niacin, Retinol, Folic acid, Thiamine
  - (b) ATP, Cristae, Nucleolus, Power house
  - (c) Sublingual, Submandibular, Subway, Parotid
  - (d) Typhoid, Asthma, Cholera, Tuberculosis
  - (e) Glucose, Sucrose, Galactose, Fructose

- (iv) Study the diagrams and answer the following questions: [5]



A

B

- (a) Identify the kind of disease both the children are suffering from.
- (b) These diseases are due to deficiency of which nutrients?
- (c) What are the symptoms of disease shown in figure (1)?
- (d) What are the symptoms of disease shown in figure (2)?

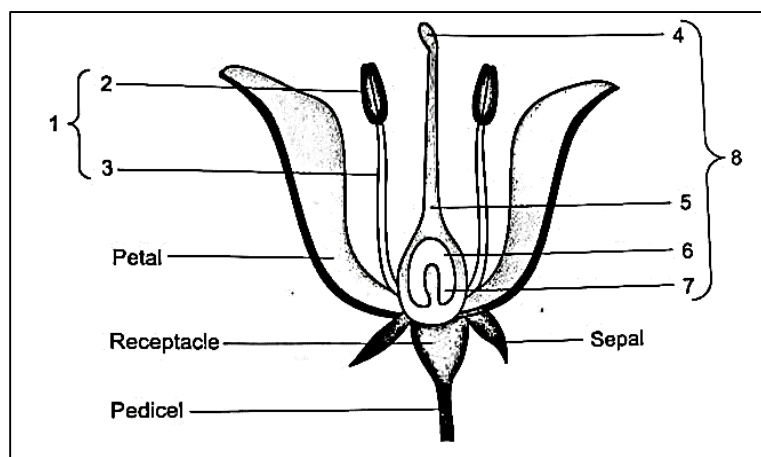
- (v) Differentiate between the following on the basis of what is given in brackets: [5]
- Calcium and Iron (function)
  - Plasma membrane and cell wall (composition)
  - Ascariasis and Taeniasis (transmission)
  - Monoecious and Dioecious (condition)
  - Respiration and Photosynthesis (substrate)

### SECTION B

(Attempt **any four** questions from this Section.)

#### Question 3

- (i) Jayesh noticed a diagrammatic sketch of the vertical section of a flower in the school laboratory. Help Jayesh answer the questions:



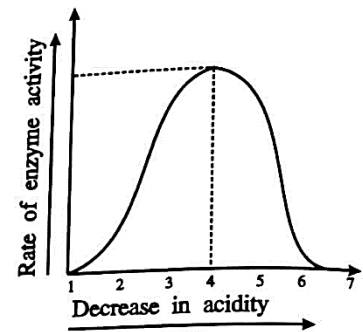
- What is the function of part 4? [1]
  - Name the tissue which attaches part 7 to the wall of part 6. [½]
  - Describe the three types of cohesion found in part 1. [3]
  - If part 8 is absent in a flower, then what is the flower called? [½]
- (ii) What are the sources of agricultural wastes? [2]
- (iii) Name one enzyme responsible for each of the following conversions: [2]
- Peptides → Amino acids
  - Starch → Maltose
- (iv) Explain Pasteurization. [1]

#### Question 4

- (i) Give biological reasons for the following: [2]
- Tinned or canned food is not always safe to eat.
  - Yeast is used in bakeries and breweries.
- (ii) Define the following terms: [3]
- Sepaloid perianth
  - Inflorescence
  - Peristalsis

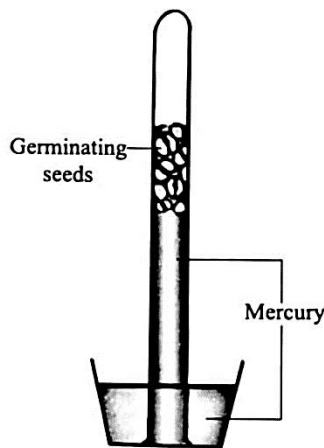
(iii) The graph below shows the activity of a certain digestive juice. [5]

- Name the gland which secretes this digestive juice?
- What is the colour of this digestive juice?
- How is this digestive juice transported?
- Where does this digestive juice get temporarily stored?
- Give two functions of this digestive juice.
- Mention any one important function of the gland mentioned by you in (a) other than the production of the digestive juice.



### **Question 5**

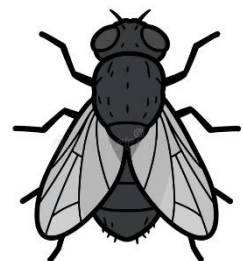
(i) The diagram given below shows the result of an experiment that was set up to demonstrate anaerobic respiration: [5]



- Name the gas that has accumulated in the space above the seeds.
- What will you observe when a stick of potassium hydroxide is introduced into the test tube?
- Write a chemical equation for anaerobic respiration in plants.
- Give the full form of ATP.
- Name two microbes which respire only anaerobically.

(ii) The figure given below shows a vector that acts as an intermediate carrier of a pathogen. [5]

- What is the economic importance of this vector?
- Why is it called as Public enemy no. 1?
- How does it contaminate food?
- How does it directly convey the infection?
- State one control measure to stay safe from this vector.

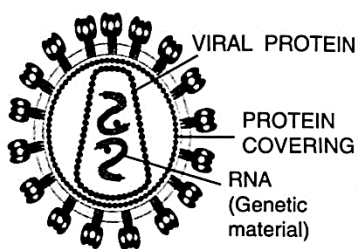


### **Question 6**

(i) Draw a labelled diagram to show the internal structure of a mammalian tooth with two roots. [3]

(ii) The figure below represents a virus magnified several thousand times.

[2]

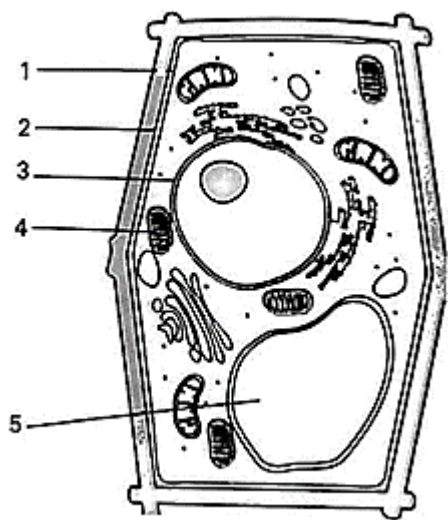


(a) Name the virus and the disease it spreads.

(b) State any one method by which this disease is transmitted.

(iii) Study the given figure carefully and answer the questions that follow:

[5]



(a) Is the given diagram that of a prokaryotic cell or an eukaryotic cell?

(b) Mention two evidences visible in the diagram to support the answer given by you above.

(c) Label the parts 1 and 2.

(d) What is part 4 also known as? Give a reason.

(e) Give function of parts 3 and 5.

### **Question 7**

(i) Name a drug used in the treatment of Malaria.

[1]

(ii) Give exact location of the following:

[2]

(a) Canines

(b) Melanin

(iii) Define Respiration. Give an equation representing Aerobic respiration.

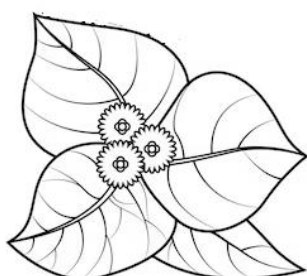
[2]

(iv) A good antibiotic is always a broad spectrum antibiotic. What other characteristics should be present in a good antibiotic?

[2]

(v) The figure below shows a flower of Bougainvillea.

[3]



(a) Redraw the flower and label the flower and the bract.

(b) What is a bract?

(c) Distinguish between Neuter and hermaphrodite flower.

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