

# GREENLAWNS SCHOOL, WORLI

FINAL EXAMINATION: 2025-26

## BIOLOGY

Std: IX

Marks: 80

Date: 04/03/2026

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

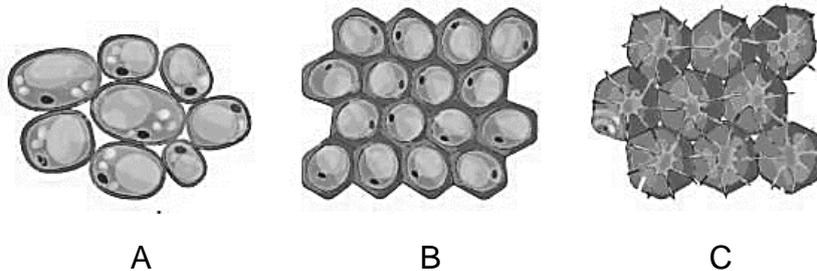
Choose the correct answers to the questions from the given options.

[15]

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

- (i) Which of the following is NOT a component of blood?  
(a) WBC (c) Plasma  
(b) Platelets (d) Lymph
- (ii) In flowering plants, the zygote is formed from:  
(a) Sperm nucleus + polar nuclei (c) Tube nucleus + polar nuclei  
(b) Sperm nucleus + egg cell (d) Tube nucleus + egg cell
- (iii) A farmer sows seeds very deep in the soil. The seeds fail to germinate. The most likely reason is:  
(a) Lack of oxygen (c) Absence of seed coat  
(b) Lack of food reserve (d) Absence of cotyledons
- (iv) Which of the following term or phrase is associated with glycolysis?  
(a) Mitochondria (c) Pyruvate  
(b) Aerobic process (d) Complete oxidation
- (v) The sequence of representing the units of classification is:  
(a) Kingdom, Phylum, Class, Family, Order, Genus, Species  
(b) Kingdom, Phylum, Order, Class, Family, Genus, Species  
(c) Kingdom, Phylum, Class, Order, Family, Genus, Species  
(d) Kingdom, Phylum, Family, Class, Order, Genus, Species
- (vi) Which structure is correctly matched with its function?  
(a) Villi – absorption of digested food (c) Stomach – digestion of fats  
(b) Pancreas – storage of bile (d) Gall bladder – digestion of proteins
- (vii) Total lung capacity (TLC) = \_\_\_\_\_  
(a) TV + IRV (c) TV + IC + ERV  
(b) VC + RV (d) RV + ERV + TV

(viii) Which of the following plant tissues may contain chloroplasts and carry photosynthesis?

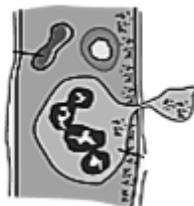


- (a) A and B  
 (b) B and C  
 (c) A and C  
 (d) Only A

(ix) **Assertion:** World Health Organisation is a specialised agency of the UNO.  
**Reason:** The main function of WHO is to perform activities which should remove human sufferings, including during the times of war.

- (a) Both A and R are true  
 (b) Both A and R are false  
 (c) A is false, but R is true  
 (d) A is true, but R is false

(x) Identify this phenomenon:



- (a) Digestion  
 (b) Phagocytosis  
 (c) Diapedesis  
 (d) Peristalsis

(xi) Human skeleton altogether contains 213 bones. Which of the following are exactly 10 in number?

- (a) Ear ossicles  
 (b) Metacarpals  
 (c) Carpals  
 (d) Face

(xii) While eating her breakfast hurriedly, Samaira started to get hiccups. Hiccups occur when the food particles enter the windpipe instead of the food pipe. Which structure prevents the food from entering the windpipe during swallowing?

- (a) Epiglottis  
 (b) Pharynx  
 (c) Salivary gland  
 (d) Larynx

(xiii) A baby boy aged 2 years is admitted to playschool and passes through a dental check-up. Dentists observe that the boy had only 20 teeth. Which teeth were absent?

- (a) Incisors  
 (b) Canines  
 (c) Premolars  
 (d) Molars

- (xiv) Four word equations are given below:  
 P – Carbon dioxide + Water → Glucose + Oxygen  
 Q – Glucose → Lactic acid  
 R – Glucose + Oxygen → Carbon dioxide + Water  
 S – Glucose → Alcohol + Carbon dioxide  
 What are the equations for anaerobic respiration in humans and fungi?

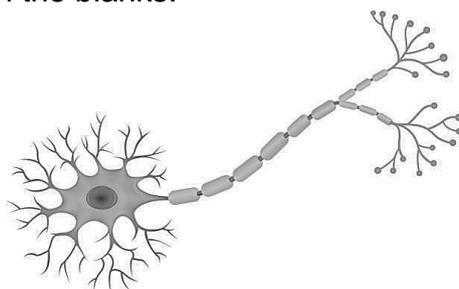
- (a) P and Q  
 (b) R and S  
 (c) P and R  
 (d) Q and S

- (xv) **Assertion (A):** Active immunity is long lasting but slow in response.  
**Reason (R):** Passive immunity is short lived but provide immediate relief.

- (a) Both A and R are true and R is the correct explanation of A.  
 (b) Both A and R are true but R is not the correct explanation of A.  
 (c) A is true but R is false.  
 (d) Both A and R are false.

## Question 2

- (i) Name the following: [5]
- The disposal of garbage by burning it.
  - Artificially introducing weakened germs or germ substances into the body for developing resistance to a particular disease.
  - A rod-like structure present in the mid-dorsal axis of the body.
  - A catabolic process occurring in all living cells.
  - Different timings for maturation of gynoecium and androecium.
- (ii) Given below is a diagram of a specialized neural tissue. Read the information given below the diagram and fill in the blanks: [5]



Neural tissue is the body's communication network, found in the brain and spinal cord. Neural tissue constitutes the nervous system.

Neural tissue is made up of specialised elongated cells called (a) \_\_\_\_\_ which consists of a cell body called (b) \_\_\_\_\_ containing the nucleus and one or more elongated hair-like extensions called (c) \_\_\_\_\_. One of these, the (d) \_\_\_\_\_ may be very long, sometimes as long as one metre and form a (e) \_\_\_\_\_ when bundled together.

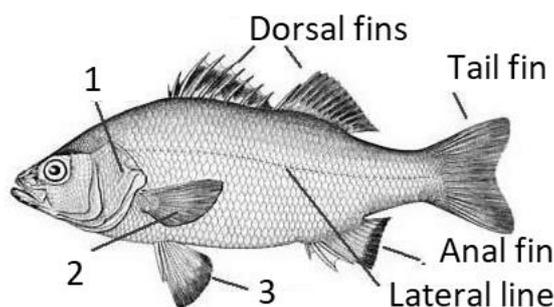
- (iii) Arrange and rewrite the terms in each group in the correct order so as to be in a logical sequence beginning with the term that is underlined. [5]
- (a) Angiosperms, Pteridophyta, Thallophyta, Gymnosperms, Bryophyta.  
 (b) Bronchi, Lungs, Larynx, Nose, Trachea, Pharynx.  
 (c) Epithelium, Aleurone layer, Radicle, Scutellum, Endosperm.  
 (d) Lumbar, Cervical, Coccyx, Sacrum, Thoracic.  
 (e) Stomach, Oesophagus, Large intestine, Small intestine, Pharynx.

- (iv) Read the explanations given below and name the structure: [5]  
 Example: The largest gland in the human body that secretes bile.

Answer: Liver

- (a) A thin membrane that covers the lungs and lines the interior wall of the chest cavity.  
 (b) An air pollution control device that removes fine particulate matter from industrial exhaust gases using the force of an induced electrostatic charge.  
 (c) A large cup-shaped articular cavity into which fits the large round head of the thigh bone.  
 (d) A distinct whitish oval scar on the concave side of the seed.  
 (e) A short cylindrical band of thick glandular skin which surrounds the body like a belt in earthworms.

- (v) Study the figure given below and answer the following questions: [5]



- (a) Name the phylum and class to which this organism belongs.  
 (b) Identify part 1 and name the respiratory organ covered by it.  
 (c) Label the fins 2 and 3.  
 (d) Differentiate between the two types of fishes based on part 1.  
 (e) Explain the term poikilothermal.

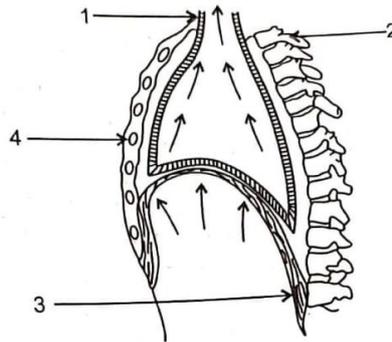
## SECTION B

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

### **Question 3**

- (i) Name any two enzymes present in the pancreatic juice and state their function. [2]
- (ii) Give biological reasons for the following: [3]
- (a) Ciliated epithelium is mostly found in the inner lining of trachea.  
 (b) Five kingdom classification is better than two kingdom.  
 (c) A bat can fly, yet it is not a bird.

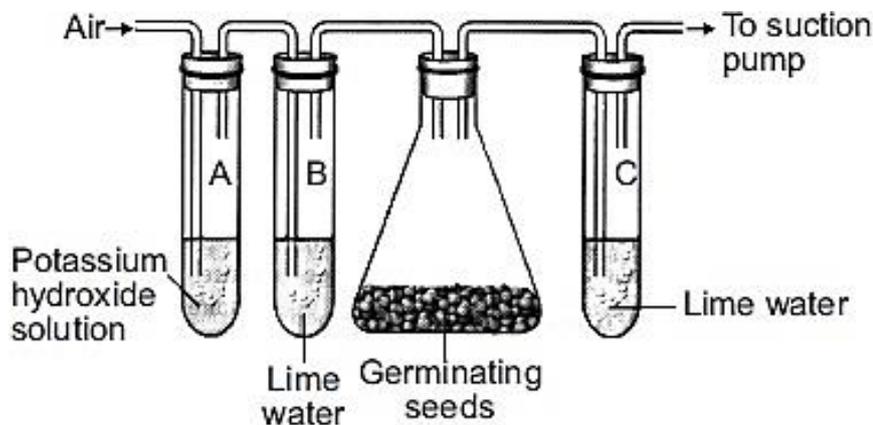
- (iii) Given below is the figure of human lung. Guidelines for 1 to 4 parts as follows: [5]  
 1 – Air rich in CO<sub>2</sub>, 2 – Vertebra, 3 – Muscles of relaxed diaphragm, 4 – Depressed ribs



- Which state of breathing is represented in the figure?
- Explain the state of diaphragm in the above state.
- What is the percentage of carbon dioxide in expired air?
- What is dead airspace?
- Give the overall chemical equation to represent the process of respiration in humans.
- What is hypoxia?

#### **Question 4**

- (i) Study the arrangement shown below and answer the questions that follow: [5]

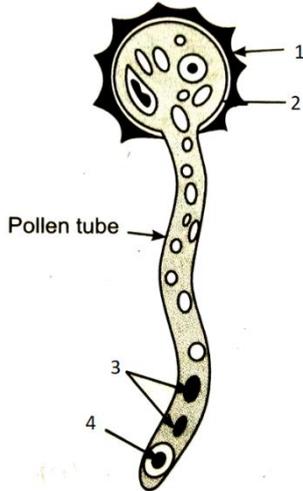


- State the aim of this experiment?
  - What is the role of the solution in test tube A?
  - What visible changes would you expect in the lime water in B and C during the experiment?
  - What can be the control for this experiment?
  - Differentiate between aerobic and anaerobic respiration in plants with regards to amount of energy released.
- (ii) Differentiate between the following on the basis of what is given in brackets: [3]
- Striated and unstriated muscles (structure)
  - Hypogeal and epigeal germination (location of cotyledons)
  - Typhoid and Tuberculosis (vaccine)

- (iii) Give two examples of each: [2]  
 (a) Herkogamy  
 (b) Supportive connective tissue

**Question 5**

- (i) Given below is the diagram of a pollen grain beginning to germinate. Answer the questions that follow: [5]

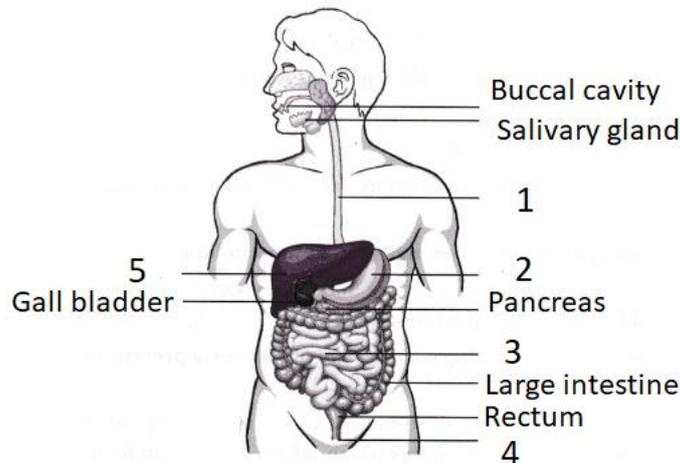


- (a) Label the parts 1 and 2.  
 (b) What is the function of part 4?  
 (c) Describe the fate of the part labelled 3 during fertilization?  
 (d) Define fertilization.

- (ii) State the three main purpose served by Incineration. [3]  
 (iii) Define viviparous germination and give two examples. [2]

**Question 6**

- (i) Given below is the diagram for human system. Study the same and answer the questions that follow: [5]

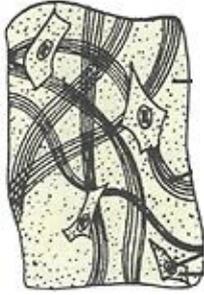


- (a) Define the movement that occurs in part 1.  
 (b) State the role of the acid found in part 2.  
 (c) Label part 3 and 4.  
 (d) Give function of the fluid found in part 5.  
 (e) Mention one adaptation of a tissue found in the inner lining of part 3.
- (ii) Draw a neat and labelled diagram of a seed cut open to show various parts. [3]  
 (iii) List any two main activities of the World Health Organisation. [2]

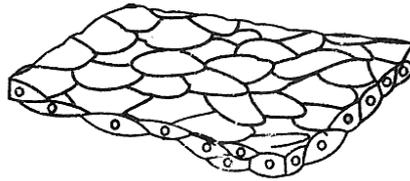
**Question 7**

(i) Observe the below given tissues and answer the questions that follow:

[5]



(A)



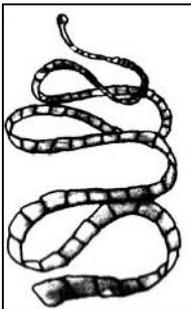
(B)



(C)

- (a) Distinguish between the specialized types of tissues found in figure 'A' with regards to support.
- (b) Give location of tissue 'B' in the human body.
- (c) State the functions of tissue 'B'.
- (d) Explain any one type of category found in the plant tissue 'C'.
- (e) Define tissue.

(ii) The figure below shows an organism:



- (a) Identify the organism and the phylum to which it belongs? [1]
- (b) State two important features of this phylum. [2]

(iii) State two merits of the local defence system.

[2]

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