

**Greenlawns High School**  
**Final Examination 2025**  
**Subject: Biology**

**Std: IX C**

**Date: 21/02/2025**

**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 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.

**SECTION A**

**(Attempt all questions from this Section.)**

**Q.1 Choose the correct answers to the questions from the given options:(15)**  
**(Write the correct option and the corresponding answer)**

i) Which of the following statement is not true for mushrooms?

- a) Mushroom contains 85-95 % of water.
- b) Mushrooms are unicellular fungi.
- c) Most mushrooms are mildly or severely poisonous.
- d) Gamma radiations are used for preserving mushrooms.

ii) Which of the following is a byproduct of yeast fermentation that contributes to leavening of dough during bread making?

- a) Ethanol
- b) Sugar
- c) Oxygen
- d) Carbon dioxide

iii) How do toxoids work to provide immunity?

- a) By stimulating the production of antibodies that neutralizes the toxin.
- b) By stimulating the production of antibodies that kill the pathogen.
- c) By stimulating the production of antibodies that prevent the micro-organisms from adhering to host cells.
- d) By stimulating the production of antibodies that enhance inflammatory response.

iv) What is the primary purpose of spore formation in bacteria?

- a) To increase metabolic activity.
- b) To enhance nutrient uptake.

- c) To survive in adverse environmental conditions.
- d) To facilitate reproduction.

v) Which of the following are correct pairs?

- a) Anopheles – Malaria, Culex Yellow fever –, Aedes –Elephantiasis.
- b) Anopheles – Malaria, Culex – Elephantiasis, Aedes – Yellow fever.
- c) Anopheles –Elephantiasis, Culex – Malaria, Aedes – Yellow fever.
- d) Anopheles – Yellow fever, Culex – Elephantiasis, Aedes – Malaria.

vi) Which of the following diseases is caused by Rat-flea?

- a) Typhoid
- b) Cholera
- c) Dengue
- d) Plague

vii) A patient is suffering from head ache, poor coordination, confusion, numbness and trouble in sleeping. By which organism he must have got infected?

- a) *Treponema pallidum*
- b) *Trypanosoma brucei gambiense*
- c) *Wuchereria bancrofti*
- d) *Plasmodium*

viii) By which method, the AIDS virus will not get transmitted?

- a) Sharing bathrooms and toilets.
- b) Sharing unsterilised injection needles.
- c) Mother to child during birth.
- d) Sexual intercourse.

ix) Which of the following statements is not true for disinfectants?

- a) They are strong chemicals and should not come in contact with human skin.
- b) Deodorants can be used as disinfectants.
- c) Strong heat and boiling are physical disinfectants.
- d) Disinfectants are widely used in hospitals.

x) Assertion (A): At times diarrhoea can act as a part of local defense system.

Reason (R): Diarrhoea helps in throwing out the germs if infection persists in digestive tract.

- a) A is True, R is false.
- b) A is false, R is true.
- c) A and R both are true.
- d) A and R both are false.

xi) The slimy secretion of the epithelial lining of the various organs is called:

- a) Antiseptic
- b) Disinfectant
- c) Antibody
- d) Mucus.

xii) \_\_\_\_\_ cells of stomatal pore in leaves are bean shaped.

- a) Guard cells.
- b) Epidermal cells.
- c) Red blood cells.
- d) Muscle cells.

xiii) Which of the following cell organelles have their own DNA?

- a) Mitochondria and Ribosome.
- b) Chloroplast and Ribosome.
- c) Mitochondria and chloroplast.
- d) Ribosome and Lysosome.

xiv) The last two ribs, 11<sup>th</sup> and 12<sup>th</sup> pairs of ribs are called as \_\_\_\_\_.

- a) Floating ribs
- b) False ribs
- c) True ribs
- d) Negative ribs

xv) The socket of shoulder girdle is called as \_\_\_\_\_

- a) Acetabulum
- b) Pelvic cavity
- c) Glenoid cavity
- d) Articular facet

## **Question 2**

### **A) Name the following:**

**(5)**

- i) The scientific name of Yeast.
- ii) The vaccine given to prevent tuberculosis.
- iii) The germ killing substance secreted by the stomach.
- iv) The process by which cut ends of the blood vessels at the wound gets plugged and prevent entry of germs.
- v) A Short bundle of microfilaments present in animal cells and arranged at right angle to each other.

### **B) Fill in the blanks:**

**(5)**

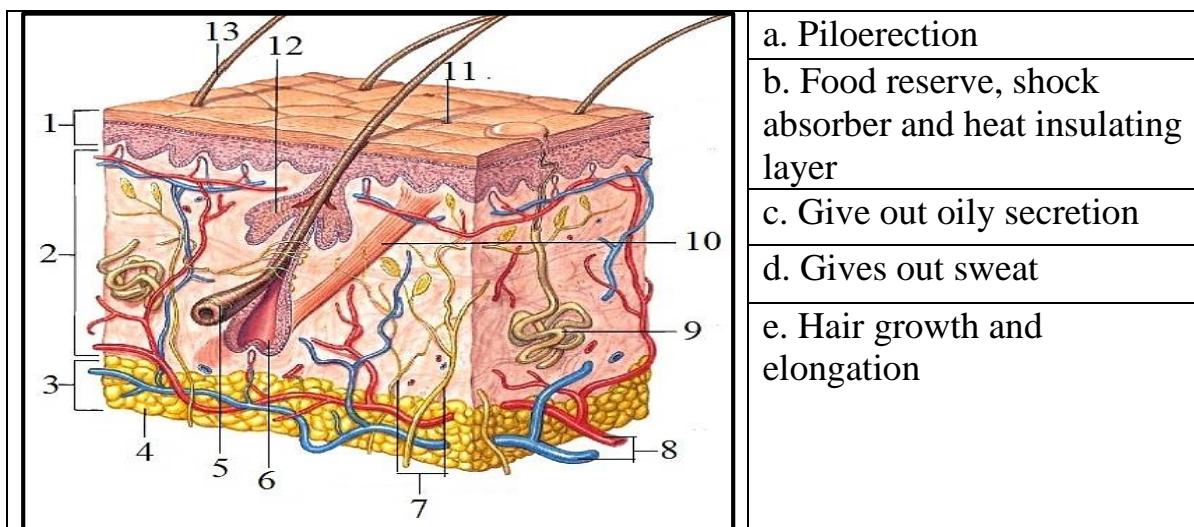
- i) In \_\_\_\_\_ nutrition, bacteria draw nourishment from decaying dead organisms.

- ii) \_\_\_\_\_ is the period between the entry of germs and the appearance of the first symptoms of disease.
- iii) \_\_\_\_\_ secreted by the stomach kills germs that gain entry along with the food .
- iv) During cell division the chromatin fibres become thick and ribbon like. These fibres are then called as \_\_\_\_\_.
- v) \_\_\_\_\_ is an extensor muscle present in arm which enables straightening of the lower arm.

**C) State whether true or false, if false correct the underlined word, and Rewrite the statement:** (5)

- i) Ammonium compounds are converted into nitrites by Nitrosomonas.
- ii) Hepatitis B is transmitted through contaminated water.
- iii) 1<sup>st</sup> December is a World's AIDS day.
- iv) Antibiotics belongs to the class of immunoglobulin.
- v) Shoulder joint is a ball and socket joint.

**D) Given below is a diagram of a microscopic structure of human skin. Match the labelled structures with their correct function.** (5)



**E) The first pair indicates the kind of relationship that exists between the first two terms. Complete the second pair on a similar basis.** (5)

- i) Disease spread in small area: Endemic :: Disease spread world-wide : \_\_\_\_\_.
- ii) Haemophilia: Genetic disease :: Arthritis : \_\_\_\_\_.
- iii) TAB vaccine: Killed germs :: Vaccine for tetanus : \_\_\_\_\_.
- iv) Red coloured plastid : Chromoplast :: Colourless plastid : \_\_\_\_\_.
- v) Knee cap : Patella :: Breast Bone : \_\_\_\_\_.

## SECTION B

(Attempt any 4 questions from this Section.)

### Question 3: (10)

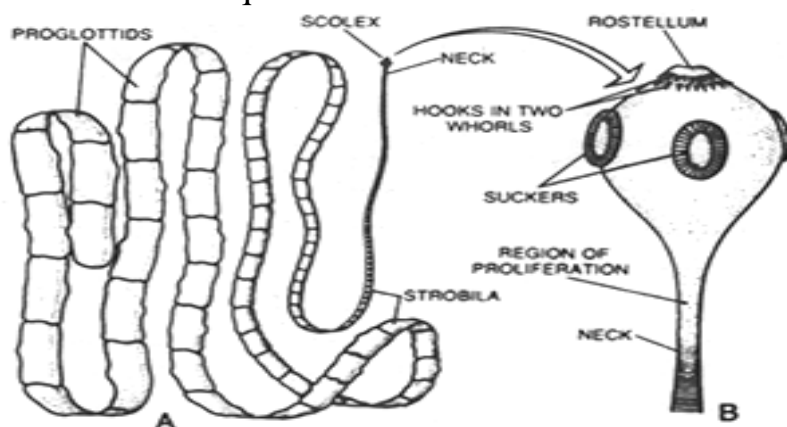
- i) Give reason - Pickling is used as a food preservation method. (1)
- ii) Write the causative agents of the following diseases: (2)
  - a) Cholera.
  - b) Amoebic dysentery.
- iii) What are the symptoms of chicken pox? How can it be prevented? (2)
- iv) a) Write the exact location of melanin. (2)
  - b) Explain the term Leukoderma.
- v) Draw a neat labelled diagram of Bacterial cell. (Label any 4 parts). (3)

### Question 4: (10)

- i) Write the function of stratum corneum. (1)
- ii) Write the important role of: (2)
  - a) Cerumen
  - b) Secretion of meibomian gland
- iii) What is an antiseptic? Write two examples of an antiseptic. (2)
- iv) Explain the process of cheese making. (2)
- v) Explain three common problems related to sebaceous glands. (3)

### Question 5: (10)

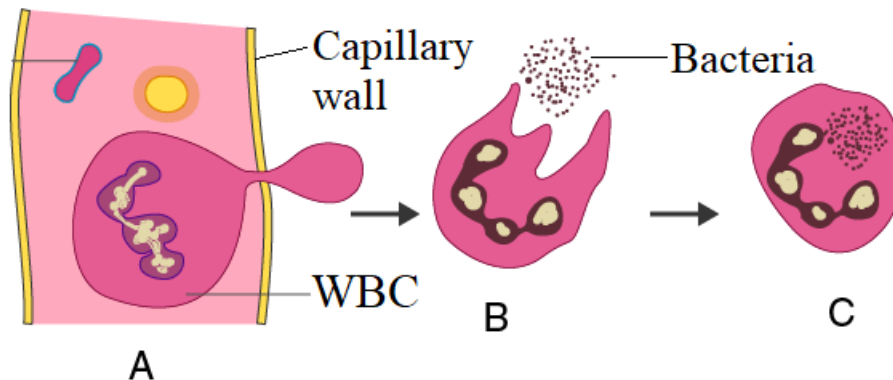
- i) Distinguish between pathogen and carcinogen. (1)
- ii) What is serum? Write any one serum compound produced by genetically modified bacteria and for treatment of which disease it is used? (2)
- iii) Name the fishes used to control the spread mosquitoes. Explain one more method used to control mosquitoes. (2)
- iv) The following picture shows a diagram of an organism. Study the diagram and answer the questions that follow: (2)



- a) Name the disease caused by this organism.
- b) How is this disease transmitted?
- v) Explain any three ways by which housefly spreads diseases. (3)

**Question 6:** (10)

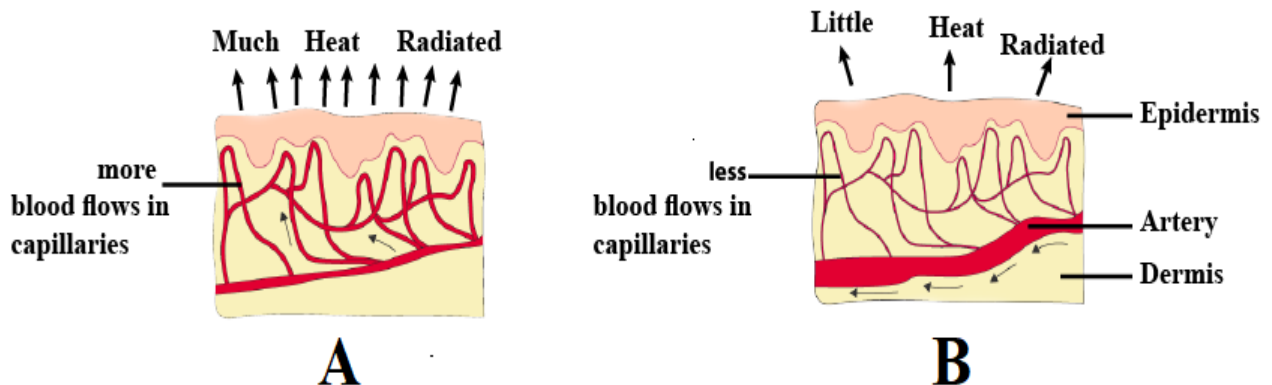
- i) Distinguish between Naturally acquired passive immunity and Artificially acquired passive immunity. (1)
- ii) a) What is the mode of transmission for typhoid? (2)  
b) Which antibiotic is used in treating typhoid?
- iii) Write the scientific name of white button mushroom. Explain spawning as one of the steps of mushroom cultivation. (2)
- iv) The following diagram represents a process of engulfing of bacteria by white blood cells. Study the diagram and answer the questions that follow: (2)



- a) Write the scientific term used for this process.
- b) Name the type of WBC shown in the above diagram.  
Name the process shown in part A of this diagram.
- v) a) Write full form of COVID -19. (3)  
b) How viruses are grown in laboratory?  
c) Viruses are highly specific – Give reason.

**Question 7:** (10)

- i) Give reason – Mitochondria is called as power houses of cell. (1)
- ii) Define: Antibody. How do antibodies protect our body? (2)
- iii) The following figures represent the ways of heat regulation in our body with the help of blood vessels. Study the figures and answer the questions that follow: (2)



a) Name the process/condition labelled as B. What colour change do we see in the facial appearance of a person during this condition?

b) In what conditions, process/condition labelled as A occur in our body?

iv) What is synovial fluid? Where is it found? (2)

v) Name an antibiotic obtained from a bacteria. Write any two uses of antibiotics. (3)

**Question 8:** (10)

i) Which order lever mechanism is shown in the following figure? (1)



ii) What is protoplasm? Why protoplasm cannot be analysed chemically? (2)

iii) a) Name the clear spaces and the liquid present in them in plant cells. (2)

b) What is the function of them?

iv) Given below is a diagram of human skeleton. Name the bones numbered 1–10. (5)

