

ICSE Board
Class IX Biology
Paper - 2

Time: 2 hrs

Total Marks: 80

General Instructions:

1. Answers to this paper must be written on the paper provided separately.
 2. You will **not** be allowed to write during the first **15** minutes. This time is to be spent in reading the question paper.
 3. The time given at the head of the paper is the time allotted for writing the answers.
 4. Attempt **all** questions from **Section I** and **any four** questions from **Section II**.
 5. The intended marks of questions or for parts of questions are given in brackets [].
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SECTION-I (40 Marks)

Attempt **all** questions from this section.

Question: 1

(a) Complete the following

- (i) The respiratory pigment present in the blood is _____.
- (ii) The common edible mushroom is _____.
- (iii) The chemical used to test starch is _____.
- (iv) _____ enzyme converts fats into fatty acids.
- (v) _____ is the portion of the embryo axis immediately above the cotyledons. [5]

(b) Choose the odd one out and mention the category for the rest:

- (i) Centrosome, Ribosome, Cell wall, Lysosome
- (ii) Trachea, Bronchus, Alveolus, Diaphragm
- (iii) Vitamin K, Vitamin B1, Vitamin A, Vitamin D
- (iv) Typhoid, Mumps, Smallpox, Polio
- (v) Mouth, Stomach, Liver, Small intestine [5]

(c) Name the following:

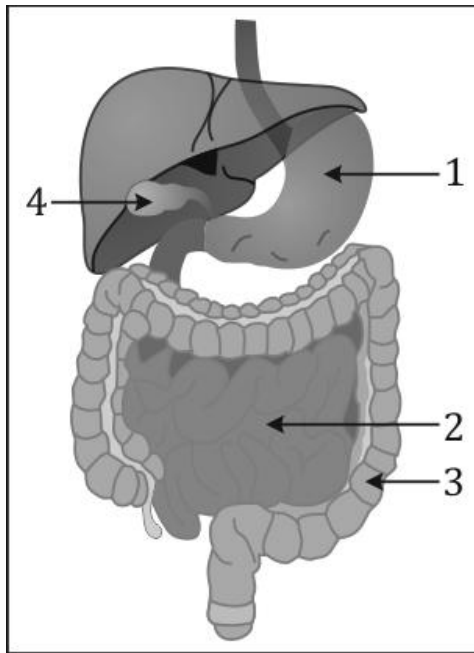
- (i) The structure, which prevents food from entering the trachea during swallowing.
- (ii) The enzyme, which converts leftover starch into maltose.
- (iii) The last part of the large intestine.
- (iv) Lymph vessel present inside the villus.
- (v) The space present between incisors and premolars. [5]

(d) Out of the given 14 biological terms, write ten matching pairs: [5]

Radicle, Pupa, Cancer, Duodenum, Coccyx, Acetabulum, Erector muscle,
Pancreatic juice, Rudimentary tail, Cephalothorax, Hair, Carcinogen,
Fibrous root, Pelvic girdle.

Example: Radicle - Fibrous root

(e) The given figure shows parts of the human digestive system.



1. Label parts 1 to 4.

2. State two functions of part 4.

[5]

(f) State the source organism for each of the following antibiotics:

(i) Streptomycin

(ii) Chlorotetracycline

(iii) Penicillin

(iv) Bacitracin

(v) Erythromycin

[5]

(g) State the role of the following:

(i) Ribosome

(ii) Stomata

(iii) Xylem

(iv) Root cap

(v) Bile

[5]

(h) Match the following:

[5]

Column A	Column B
(i) Penicillin	Animal cells
(ii) Cell wall	Bryophyta
(iii) Plants without roots, stem and leaves	Antibiotic
(iv) Centrosome	Plant cells
(v) Moss	Thallophyta

SECTION-II (40 Marks)

Attempt any **four** questions from this section.

Question 2

[10]

(a)

- (i) State and define different categories of diseases, based on the extent of occurrence? Give one example for each.
- (ii) What is parthenocarpy? Give two examples of parthenocarpic fruits.

(b)

- (i) State two characteristics of Phylum Coelenterata.
- (ii) State three advantages of vegetative propagation.

Question 3

[10]

(a)

- (i) What are villi? State their function.
- (ii) Explain a dicot seed.

(b)

- (i) Write the various components of an ecosystem with examples.
- (ii) Mention three ways by which the eyes can be protected from infection.

Question 4

[10]

(a) Give reasons:

- (i) *Entamoeba histolytica* has no contractile vacuole.
- (ii) Mitochondria are the powerhouses of the cell.
- (iii) Coconuts are seen floating on water.
- (iv) One should breathe through ones nose and not through ones mouth.
- (v) Fungi are heterotrophic.

(b) Differentiate between vertebrates and invertebrates.

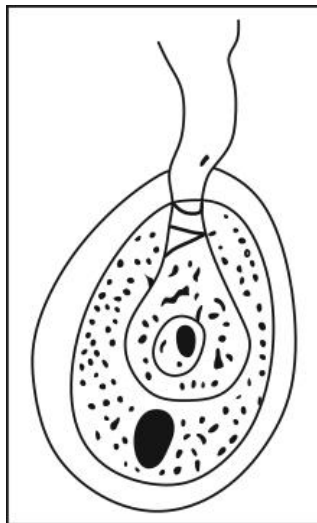
Question 5

[10]

(a)

- (i) Explain the structure of a neuron with the help of a diagram.
- (ii) Write the climatic conditions of tropical rainforests. Where are they located?

(b) The given figure shows a microscopic plant.



- (i) Name the plant.
- (ii) Which group does it belong to?
- (iii) Is the organism motile, if yes which structure helps in locomotion?
- (iv) State two features of this plant.
- (v) Where can you see this plant?

Question 6

[10]

(a) Name the phyla with the respective characteristics:

- (i) Jointed legs with chitinous exoskeleton.
- (ii) Excretory organs are nephridia.
- (iii) Locomotory organs are tube feet.
- (iv) Asegmented body with a hard calcareous shell.
- (v) Diploblastic with water vascular system.

(b) Name one enzyme, which converts each of the following:

- (i) Fats into fatty acids
- (ii) Starch into maltose
- (iii) Lactose into glucose
- (iv) Proteins into amino acids
- (v) Caseinogen into casein

Question 7

[10]

(a)

- (i) What are the regions of the epidermis of the skin?
- (ii) State the salient features of Phylum Porifera.

(b) How are the given floral parts advantageous to the respective plants?

- (i) Long and feathery stigma
- (ii) Brightly coloured petals
- (iii) Smooth and light pollen
- (iv) Protruding and easily movable anthers
- (v) Fragrant nectar