

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 [].

SECTION-I (40 Marks)

Attempt **all** questions from this section.

Question 1

(a) Name the following:

- (i) A flower which contains all the four whorls.
- (ii) A plant in which male and female flowers are present on the same plant.
- (iii) The disease caused by HIV.
- (iv) A condition of united sepals.
- (v) A cell organelle concerned with synthesis of proteins. [5]

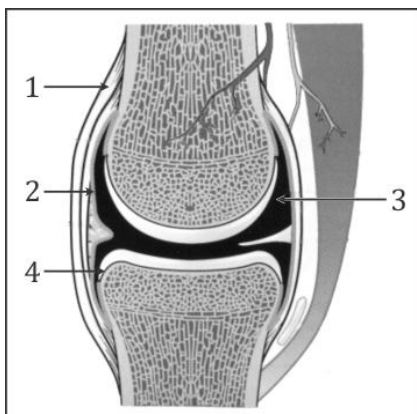
(b) Complete the following statements:

- (i) In ex-albuminous seeds, the food material is stored in _____.
- (ii) Tomato is a _____.
- (iii) A fruit is a ripened _____.
- (iv) The respiratory pigment present in the blood is _____.
- (v) _____ enzyme converts fats into fatty acids. [5]

(c) 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

(d) Study the figure and answer the following questions:



- (i) Identify the figure.
- (ii) Label parts 1-4.
- (iii) Define: Ball and socket joint. [5]

(e) Find the odd one out and give the category for the rest.

- (i) Yeast, *Rhizopus*, *Mucor*, *Spirogyra*
- (ii) Butterfly, Housefly, Ant, Crab
- (iii) Egg, Larva, Nymph, Pupa
- (iv) Beri-beri, Scurvy, Goitre, Mumps
- (v) Mouth, Stomach, Liver, Small intestine [5]

(f) State whether the following are True or False. Correct and rewrite the statements:

- (i) WHO headquarters are located in Geneva.
- (ii) Insects have two pairs of legs.
- (iii) Fungi reproduce by spores.
- (iv) Intercostal muscles help in internal respiration.
- (v) Earthworms are hermaphrodite. [5]

(g) Given below is an example of a certain structure and its special function. On a similar pattern, fill in the given blanks: [5]

E.g. Chloroplast – Photosynthesis

(i) Ribosome	
(ii) Centrosome	
(iii) Haustoria	
(iv) Epiglottis	
(v) Glenoid cavity	

(h) State the functions of each of the following:

[5]

- (i) Vitamin D
- (ii) Sepals
- (iii) Chloroplasts
- (iv) Endosperm
- (v) Golgi bodies

SECTION-II (40 Marks)

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

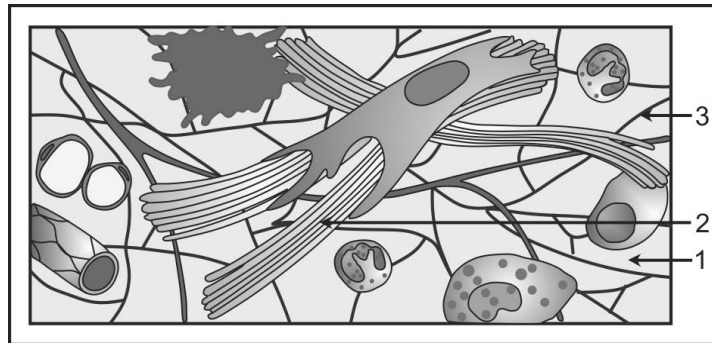
Question 2

(a) How will you show that heat is given out during respiration?

[5]

(b) Study the given figure and answer the questions based on it.

[5]

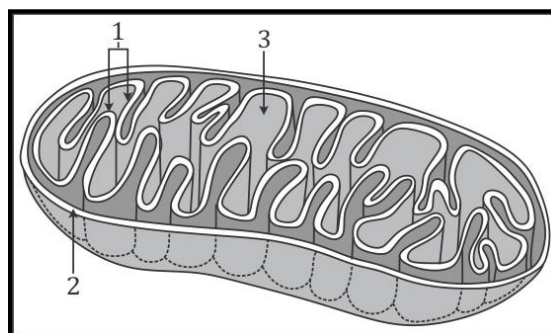


- (i) Identify the figure.
- (ii) Label parts 1-3.
- (iii) What is the function of the given structure?
- (iv) Where is it located?

Question 3

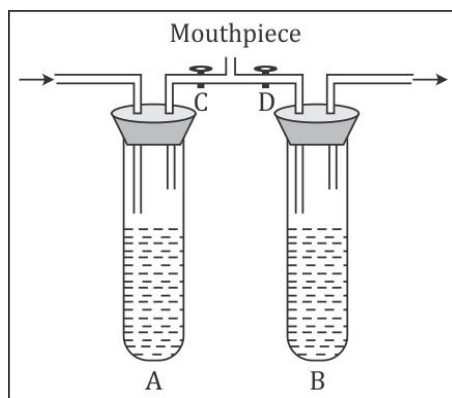
(a) The given figure shows the structure of mitochondria.

[5]



- (i) Label parts 1-3.
- (ii) What is the function of mitochondria?
- (iii) Justify: Mitochondria is called the power house of the cell.

- (b)** The figure below represents an experimental set-up for demonstrating certain aspects of air breathed in and breathed out. The two valves, C and D help to regulate the direction of flow of air represented by arrows.



- (i) There are serious mistakes at two places in the diagram. Redraw the diagram correctly to eliminate the mistakes.
- (ii) What is the aim of the experiment?
- (iii) Name the liquid contained in test tube A and B.
- (iv) What would be the observation after the experiment? [5]

Question 4

- (a)** The given figure refers to the structure of human skin. Study the figure carefully and answer the questions based on it.



- (i) Label parts 1-9.
- (ii) How does the skin help in maintaining body temperature?
- (iii) State the functions of part 3, 4 and 9.
- (iv) What are the excretory substances present in sweat? [5]

(b)

- (i) State the postulates of cell theory. [5]
- (ii) What is triple fusion? What is its importance?

Question 5

(a)

- (i) What are communicable diseases? Give two examples.
- (ii) Write the full form of: BCG and AIDS. [5]

(b)

- (i) What is epigeal germination? Name a seed which shows epigeal germination.
- (ii) Define: (1) Tidal volume (2) Vital capacity [5]

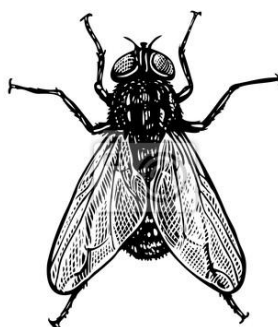
Question 6

(a)

- (i) Draw a neat and well-labelled diagram of a developing pollen grain.
- (ii) What is double fertilisation? [5]

(b)

- (i) What is malaria? How is it caused?
- (ii) Study the given figure and answer the questions based on it:



- 1. Name the insect.
- 2. Name the diseases spread by this insect.
- 3. How does it spread diseases? [5]

Question 7

Give reasons: [10]

- (i) *Entamoeba histolytica* has no contractile vacuole.
- (ii) The last molar of each side in each jaw is called wisdom tooth.
- (iii) Coconuts are seen floating on water.
- (iv) One should breathe through your nose and not through your mouth.
- (v) Fungi are heterotrophic.