ICSE Board
Class IX Biology
Sample Paper - 14

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) Plants in which male and female flowers are borne on different plants

(ii) Long and unbranched hollow tube that consists of 11–13 longitudinal strands

(iii) Biological energy currency

(iv) Obtaining of a progeny from a cross of two or more parent plants that differ in one or more genetic characters

(v) Undigested fibrous material present in food [5]

(b) Select one suitable term from the brackets and fill in the blanks:

(i) The_____ attracts insects for pollination. [ovary, petals, sepals]

(ii) Formation of sludge takes place during _____. [primary treatment, secondary treatment, tertiary treatment]

(iii) Gram, pea and mango are_____. [seeds, vegetables, fruits]

(iv) _____ is supportive in function. [sieve tubes, phloem fibres, companion cells]

(v) Joints between ribs and sternum are _____ joints. [cartilaginous, gliding, pivot] [5]

(c) State one point of difference between the following pairs on the basis of what is indicated in the brackets.

(i) Plant cell and animal cell [food material]

(ii) Tuberculosis and diptheria [causative organism]

(iii) Thoracic region and caudal region [number of vertebrae]

(iv) Vitamin B_6 and Vitamin B_{11} [function]

(v) Respiration and photosynthesis [end products] [5]

(d) Define:
(i) Ornithophily
(ii) Lymph
(iii) Inflorescence
(iv) Flexor muscle
(v) Nitrification [5]

(e) State whether the following are True or False. Correct and rewrite the statements.
(i) Domestic waste is handled by the municipal department of a city or region.
(ii) Bending of long bones is a symptom of pellagra.
(iii) Weber's glands are present in the small intestine.
(iv) Fertilisation is internal and oviparous in reptiles.
(v) Mulberry shows spadix inflorescence. [5]

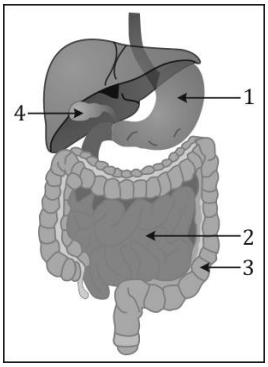
(f) Match the following:

Flowers	Inflorescence
1. Centella	a. Raceme
2. Mustard	b. Spadix
3. Banana	c. Catkin
4. Iberis	d. Corymb
5. Mulberry	e. Umbel

[5]

(g) Give one example of each:
(i) Incomplete flower
(ii) Plant having laticiferous tissue
(iii) Mixotrophic nutrition
(iv) Ball and socket joint
(v) Denitrifying bacteria [5]

(h) The given figure shows the human alimentary canal.



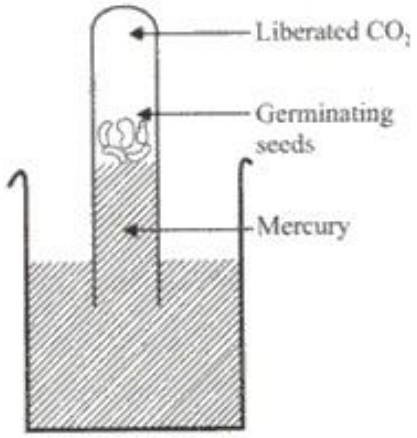
(i) What are the steps of nutrition in humans?
(ii) Name part 3.
(iii) What is the function of this structure?
(iv) Label parts 1–4. [5]

SECTION-II (40 Marks)

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

Question 2

(a) The given figure shows an experiment performed on germinating seeds.



(i) What does the experimental set-up demonstrate?
(ii) Redraw the figure as it would have been observed at the start of the experiment.
(iii) Write the chemical equation for the process. [5]

(b) Write the functions of
(i) Insulin
(ii) Oil gland
(iii) Golgi bodies
(iv) Muscular tissue
(v) Proteins [5]

Question 3

(a) Write the full form of [5]
(i) BMR
(ii) WBD
(iii) AZT
(iv) IRV
(v) ADP

(b) Define:

(i) Fermentation
(ii) Denitrification
(iii) Placentation
(iv) Cell inclusions
(v) Stele [5]

Question 4

(a)

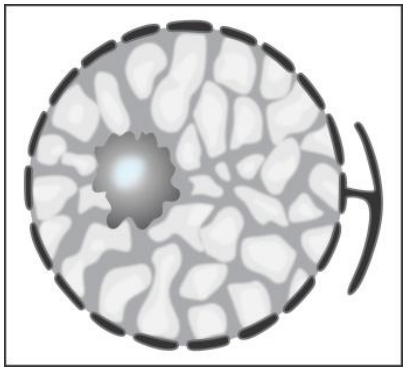
(i) Why is anaerobic respiration completed in the cytoplasm?
(ii) Describe the various ribs of the human body. [5]

(b)

(a) How is the respiratory tract kept free of dust particles?
(b) What is the role of mucous lining in the respiratory tract? [5]

Question 5

(a) The given figure shows a certain structure of a cell.



(i) Name the structure.
(ii) Why is this structure important for the cell?
(iii) Is this structure present in all cells? If not, mention the cell that lacks this structure. [5]

(b) [5]

(i) State one example of carelessness in disposing research and laboratory waste.
(ii) After garbage has been dumped in a landfill, how is the non-useful component of garbage dealt with?

Question 6

(a) If you consume butter in your lunch, how will it get digested in your body? [5]
(b) What are poikilothermic animals? [5]

Question 7

(a)

(i) What happens when pollen grains get deposited on the stigma of a flower?
(ii) What are antibodies? When are they produced in the body? [5]

(b)

(i) State three characteristics of Phylum Annelida.
(ii) Describe briefly the action of hypothalamus in heat regulation. [5]