

# Annual Examination (2023-24)

Class- IX

Biology

Time: 2 hours.

Marks: 80

1. Answers to this Paper must be written on the answer sheet provided separately.
2. You will not be allowed to write during the first 15 minutes.
3. This time is to be spent in reading the Question Paper.
4. The time given at the head of this Paper is the time allowed for writing the answers.
5. Attempt all questions from Section I and any four questions from Section II.
6. The intended marks for questions or parts of questions are given in brackets [ ].

## SECTION I (40 Marks)

(Attempt all questions from this Section)

### Question 1

- (a) Identify the following phylum/class on the basis of following features. (5)
- i. soft, unsegmented, calcareous shell, muscular feet
  - ii. diploblastic, multicellular animals with coelenteron
  - iii. jointed legs, exoskeleton of chitin and haemocoel.
  - iv. spiny skinned, radially symmetrical, have tube feet
  - v. anterior mouth, gills in operculum, two chambered heart
- (b) Choose the odd one out and write the category for the remaining terms: (5)
- i. Cholera, typhoid, malaria, tuberculosis
  - ii. Hepatitis, ascariasis, chicken pox, poliomyelitis
  - iii. Elephantiasis, ascariasis, taeniasis, hepatitis
  - iv. Depression, beri-beri, scurvy, night - blindness
  - v. Malaria, amoebiasis, sleeping sickness, cataract.
- (c) Give the proper term for each of the following. (5)
- i. The condition in which anther and stigma of a bisexual flower mature at the same time.
  - ii. Fusion of one male gamete with the egg nucleus.
  - iii. Pollination brought about by the agency of air.
  - iv. A condition when anthers of the flower mature earlier than the stigma.
  - v. A compound formed by the combination of haemoglobin and oxygen.
- (d) Given below are sets of five terms each. Rewrite the terms in correct order in a logical sequence beginning with the term that is underlined. (5)
- i. Sacrum, Thoracic, Coccyx, Cervical, Lumbar
  - ii. Larynx, Pharynx, Bronchioles, Nostrils, Alveoli
  - iii. Pollen tube, Stigma, Ovary, Pollen grain, Embryo sac.
  - iv. Rectum, Pharynx, Oesophagus, Duodenum, Stomach
  - v. Nuclear membrane, Cell wall, Cytoplasm, Nucleolus, Cell membrane

(e) Differentiate between the following pairs on the basis of what is given in the brackets: (5)

- i. Tendon and Ligament (function)
- ii. Parotid gland and Sublingual gland (location)
- iii. Inspiratory reserve volume and Residual volume (volume of air)
- iv. Malnutrition and undernutrition (definition)
- v. Epidemic disease and Endemic disease (Example)

(f) Fill in the blanks with suitable words.

- i. Cell is the basic structural and \_\_\_\_\_ unit of life.
- ii. Cell was discovered by \_\_\_\_\_.
- iii. \_\_\_\_\_ are called suicidal bags of cell.
- iv. Nucleus is surrounded by a membrane called \_\_\_\_\_.
- v. \_\_\_\_\_ contain a green pigment.

(g) Mention the exact location of the following:

- i. Pancreas
- ii. Glenoid cavity
- iii. femur
- iv. Sternum
- v. Coccyx

(h) Choose the correct answer from the options given below: (5)

(A) The alphabet 'C' in NICD stands for:

- (i) cancer
- (ii) community
- (iii) communicable
- (iv) Campaign

(B) Headquarters of WHO is located in

- (i) Paris
- (ii) Berlin
- (iii) Geneva
- (iv) New York

(C) Red cross day is celebrated on:

- (i) December 1
- (ii) April 7
- (iii) May 8
- (iv) July 1

(D) Which of the following city has the regional office of WHO?

- (i) Mumbai
- (ii) Delhi
- (iii) Chennai
- (iv) Kolkata

(E) Which of the following is not a water -borne disease?

- (i) Diarrhoea
- (ii) Typhoid
- (iii) Gastroenteritis
- (iv) Diabetes

**SECTION II (40 Marks)**  
(Attempt any four questions from this Section)

(5)

**Question 2.**

(a) Name the following

- i. Unicellular eukaryotic organism
- ii. Plants that produce seeds having single cotyledon
- iii. Plants that produce seeds having double cotyledon
- iv. The topmost category in classification.
- v. Plants with naked seeds

(5)

(b) Answer the following questions briefly.

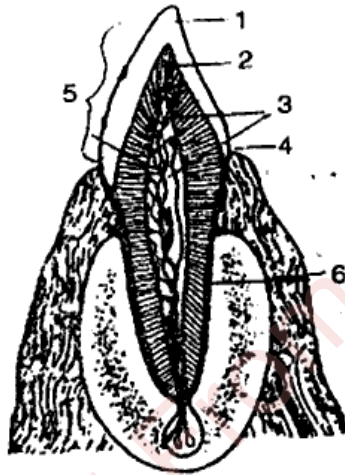
- i. State two activities of the Red Cross.
- ii. State any two ways by which food can be preserved.
- iii. One should breathe through the nose and not through the mouth. Explain.
- iv. The wall of the trachea is supported by 'C' shaped cartilaginous rings. Give a suitable reason.
- v. State two activities of WHO.

(5)

(10)

**Question 3.**

Study the diagram given below and then answer the questions that follow.



- i. Name the parts labelled 1,2,3,4,5 and 6.
- ii. Identify the tooth and give a reason to support your answer.
- iii. Describe the structure of the part labelled '3'.
- iv. Give the total number of the type of tooth, in the mouth of an adult and state its function.

**Question 4.**

(5)

(a) Distinguish between the following pairs:

- i. True ribs and floating ribs
- ii. Ligaments and tendons
- iii. Pathogen and vector
- iv. Voluntary and involuntary muscles
- v. Bone and cartilage

(b) Name the different types of joints? Give one example of each type.

(5)

**Question 5. Answer the following questions.**

- i. What are the main characteristics of an enzyme?
- ii. What is the dental formula of a normal human adult?
- iii. List the enzymes and their action on food in the stomach and intestine.
- iv. List any two purposes for which food is required by the body.
- v. What are antibiotics? Name any two examples.

**Question 6.**

(a) Give proper term for each of the following. (5)

- i. Biological oxidation of glucose into carbon dioxide and water in the presence of oxygen.
- ii. Conversion of glucose molecule into pyruvic acid in a sequence of chemical reactions.
- iii. The organelle where krebs cycle takes place.
- iv. A phase of respiration which is common to both aerobic and anaerobic respiration.
- v. Two parts of tidal volume.

(b) List any five differences between plant cell and animal cell. (5)

**Question 7.**

(a) Match the terms given in column A with those of column B (5)

Column A.	Column B
i. Tocopherol.	a. Vitamin C 4
ii. Phylloquinone	b. Vitamin D 3 & 4
iii. Retinol.	c. Vitamin K 2
iv. Ascorbic acid	d. Vitamin A 4 & 5
v. Calciferol	e. Vitamin E 1

(b) Name the followings: (5)

- i. the muscles which cause opposing movements
- ii. three main subdivisions of small intestine
- iii. three main subdivisions of large intestine
- iv. the first vertebra of the vertebral column
- v. the common passage of oesophagus and trachea.