



Estd. 1861

BOYS' HIGH SCHOOL AND COLLEGE
FIRST TERM EXAMINATION (2024-25)
CLASS - IX
BIOLOGY

Instructions to be followed:
Maximum Marks: 80
Time allowed: Two hours

Answers to this paper must be written on the paper provided separately.
You will **not** be allowed to write during the first 15mins
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.
The intended marks for questions are given in bracket []

SECTION A

(Attempt all questions from this Section)

Question 1

Choose the correct answers to the questions from the given options
(Do not copy the questions, write the correct answers only.)

[15]

- (i) Which of these is not a function of Golgi complex?
 - a) Secretion b) Vitellogenesis c) Cell division d) Membrane flow
- (ii) A yellow coloured pigment found in chromoplast.
 - (a) Xanthophyll b) Chlorophyll c) Carotene d) Pheoplast
- (iii) Tissue that always rests on basement membrane.
 - a) Skeletal tissue b) Epithelial tissue c) Muscular tissue d) Connective tissue
- (iv) Non living component of Phloem.
 - a) Phloem fibres b) Sieve tube c) Companion cell d) Phloem parenchyma
- (v) Which one of the following is not a male part of the flower?
 - a) Filament b) Anther c) Ovule d) pollen grain
- (vi) Condition in which all the stamens are free from each other.
 - a) Diadelphous b) Polyadelphous c) Polyandrous d) Monadelphous
- (vii) An insect pollinated flower.
 - (a) Salvia b) Maize c) Vallisneria d) Rafflesia
- (viii) A type of pollination in which flower is pollinated by bird.
 - a) Entomophily b) Ornithophily c) Chiropterophily d) Malacophily.
- (ix) Part of embryo axis where cotyledons are attached.
 - a) Hypocotyl b) Epicotyl c) Mesocotyl d) Epigeal
- (x) Minute pores on the seed which helps in exchange of gases.
 - (a) Hilum b) Testa c) Raphe d) Micropyle
- (xi) Bacteria present in the root nodules of leguminous plants.
 - a) Clostridium b) Nitrobacter c) Pseudomonas d) Bacillus vulgaris
- (xii) Type of Fungi which is edible as Mushroom.
 - a) Penicillium b) Agaricus c) Aspergillus d) Rhizopus
- (xiii) The type of joint found in shoulder is also found in _____.
 - a) Hip b) Knee c) Ankle d) Elbow
- (xiv) The rotator movement of the head from side to side over the vertebra is due to
 - a) Ball & Socket joint b) Gliding joint c) Pivot joint d) Hinge joint
- (xv) Which of the following condition is not necessary for germination?
 - a) Temperature b) Oxygen c) Water d) Seed variety

Question 2

[5]

- (i) Name the following
 - (a) The term given to golgi bodies in plants.
 - (b) Flower which can be divided into two equal halves which are mirror images of each other by any vertical plane.
 - (c) Pore on pollen grain through which pollen tube emerges out.
 - (d) Covering over plumule in maize seed.
 - (e) The depression on pelvic girdle in which the head of Femur articulates with the cavity.

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- (ii) Arrange and rewrite the terms in each group in the correct order so as to be in a logical sequence beginning with the term that is underlined. [5]
- (a) Phalanges, Fibula, Metatarsals, Femur, Tarsals.
 (b) Casting, Composting, Preservation, Spawning, Cropping.
 (c) Shoot, Fertilization, Root, Seed, Pollination.
 (d) Carpels, Thallamus, Sepals, Stamens, Pollination.
 (e) Nucleolus, Cell wall, Nuclear membrane, Cell membrane.
- (iii) State whether the following statements are true or false. Also rewrite the false statements correctly. [5]
- (a) Cranium is composed of twelve immovable bones.
 (b) Oxygen which is a byproduct from breweries is called as dry ice.
 (c) Vivipary is the germination in which seeds germinate inside the fruit.
 (d) Inside a pollen tube, the tube nucleus divides into two male gametes.
 (e) Additional floral whorl outside calyx is called epicalyx.
- (iv) Choose the **odd one out** from the following terms and **name the category** to which the others belong. [5]
- (a) Amyloplast, Proteinoplast, Chloroplast, Eleioplast.
 (b) Anther, Ovary, Ovule, Embryo.
 (c) Unisexuality, Homogamy, Dichogamy, Heterostyly.
 (d) Bean, Gram, Pea, Maize.
 (e) Streptomycin, TAB, Terramycin, Erythromycin.
- (v) Match the items given in Column I with the most appropriate ones in Column II and rewrite the correct matching pairs. [5]

Column I

- (a) Storage of fat
 (b) Muscles
 (c) Haversian canal
 (d) White Fibrous Connective tissue
 (e) Thrombocytes

Column II

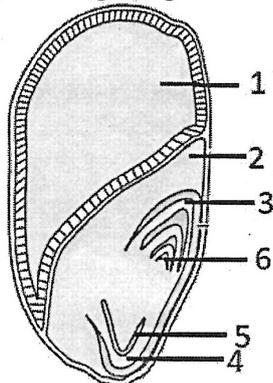
1. Myofibrils
 2. Tendons
 3. Dendrites
 4. Blood Platelets
 5. Adipose Tissue
 6. Bone
 7. Ligaments

SECTION B

(Attempt any four questions from this section)

Question 3

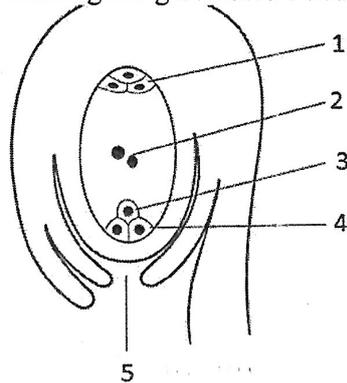
- (i) Name the cell organelle that forms the supporting framework of the cell. [1]
- (ii) Name the kind of tissue found in the following places: [2]
- a) Tip of roots
 b) Leaf stalk
 c) Below the bark
 d) Phloem fibres
- (iii) Explain the terms Monoadelphous and Diadelphous giving one example of each. [2]
- (iv) Differentiate between Water pollinated flower and Insect pollinated flower on the basis of their floral character. [2]
- (v) Study the diagram given below and answer the questions that follow: [3]



- (a) Name the structure shown. Label its parts 1 and 2.
 (b) Name the parts 3 and 4. Explain their functions.
 (c) What are parts 5 and 6? What role do they play in germination?

Question 4

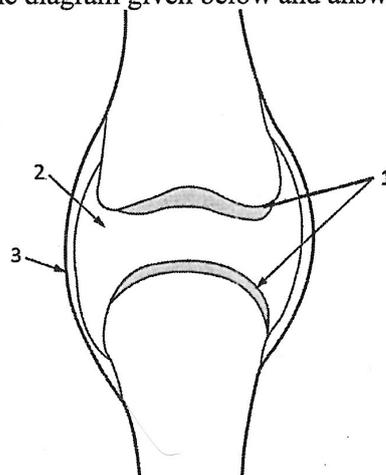
- (i) Define germination. [1]
- (ii) What do you understand by vaccine? Which type of vaccine is BCG? [2]
- (iii) State the difference between True ribs and Floating ribs. [2]
- (iv) Which cell organelle is called as the 'suicide bags of a cell' and why? [2]
- (v) Study the diagram given below and answer the questions that follow: [3]



- (a) Identify the above structure. Label part 5 and state its function.
- (b) Label parts 1 and 4 and mention the role of 4 in fertilization process.
- (c) Label parts 2 and 3. What will be their fate after fertilization?

Question 5

- (i) Give any two functions of Epithelial Tissue. [1]
- (ii) Each anther consists of two lobes which are differentiated into two chambers called (a) _____ and filled with (b) _____ having two walls, outer (c) _____ and inner (d) _____. [2]
- (iii) Explain Triple fusion. What is its end product? [2]
- (iv) State the role of the following in a seed : [2]
 - a) Plumule
 - b) Testa
 - c) Hypocotyl
 - d) Cotyledons
- (v) Study the diagram given below and answer the questions that follow: [3]



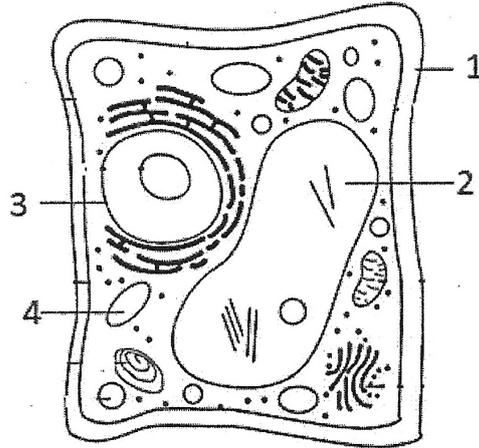
- (a) Identify the type of joint shown above and mention one of its location.
- (b) Label parts 2 and 3 and state their functions.
- (c) Name part 1 and discuss its importance.

Question 6

- (i) Define Ammonification. Name one Ammonifying bacteria. [1]
- (ii) Mention the exact location of the following: [2]
 - a) Clavicle
 - b) Foramen magnum
- (iii) Ribosomes are known as the 'Protein factory of the cell'. Give reason. Also mention its location in a cell. [2]
- (iv) Why are Xylem and Phloem called: [2]
 - a) Complex Tissue
 - b) Conducting or vascular tissue
- (v) Draw a well labelled diagram of a Flower showing all its floral parts. [3]

Question 7

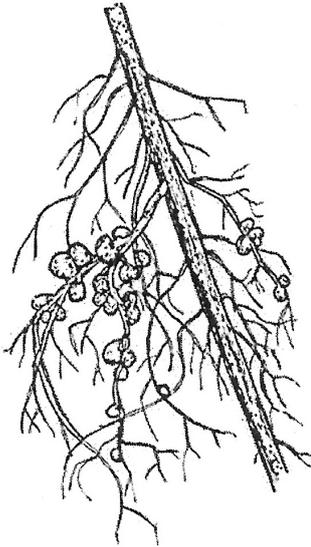
- (i) Differentiate between Neuter flower and Naked flower. [1]
- (ii) State two advantages of Cross pollination. [2]
- (iii) Explain the process of hypogeal germination in a Pea. [2]
- (iv) Bread and other bakery items are soft and spongy. Give reason. [2]
- (v) Study the diagram given below and answer the questions that follow: [3]



- (a) Label parts 1 and 2.
- (b) Is the given structure an animal cell or a plant cell? Give reason to support your answer.
- (c) Label parts 3 and 4. Give two differences between plant and animal cell .

Question 8

- (i) In old age, stiffness of joints and difficulty in movements are seen. Explain. [1]
- (ii) Differentiate between Prokaryotic and Eukaryotic cells. [2]
- (iii) Explain the following:- [2]
 - a) Inflorescence
 - b) Placentation
- (iv) State major differences between Maize grain and Bean seed. [2]
- (v) Study the diagram given below and answer the questions that follow: [3]



- (a) What is the above picture showing?
- (b) Name the process involved here and explain its importance?
- (c) Explain the process of Denitrification?
