

**SECOND TERM EXAMINATION 2025-2026**  
**STANDARD – X**  
**SUBJECT - BIOLOGY**

**TIME: 2 HRS.**

**M.M:80**

*Note: Answers to this paper must be written on the paper provided separately. You will not be allowed to write during first 15 minutes. 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**

**(Attempt all questions from this section)**

**Question- 1 Choose the correct answers to the questions from the given options. [15]**

**(Do not copy the questions, write the correct answers only)**

**[i] Translocation of food is performed by:**

- |             |               |
|-------------|---------------|
| [a] Xylem   | [b] Phloem    |
| [c] Stomata | [d] Epidermis |

**[ii] The phytohormone which is in gaseous form:**

- |              |                |
|--------------|----------------|
| [a] ABA      | [b] Cytokinins |
| [c] Ethylene | [d] Auxins     |

**[iii] The knot like mass of blood capillaries inside the Bowman's capsule:**

- |                |              |
|----------------|--------------|
| [a] Glomerulus | [b] Medulla  |
| [c] Vasa recta | [d] Papillae |

**[iv] The structural and the functional unit of nervous system:**

- |                             |                   |
|-----------------------------|-------------------|
| [a] Nephron                 | [b] Neuron        |
| [c] Both nephron and neuron | [d] None of these |

**[v] Light enters into the eyes through this structure:**

- |             |            |
|-------------|------------|
| [a] Choroid | [b] Sclera |
| [c] Cornea  | [d] Pupil  |

**[vi] Assertion [A]: Cochlea is formed of three canals.**

**Reason [R]: The Eustachian canal contains sensory cells called organ of Corti.**

- [a] [A] is true and [R] is false
- [b] [A] is false and [R] is true
- [c] Both [A] and [R] are true
- [d] Both [A] and [R] are false

[vii] The master gland of endocrine system:

- [a] Liver
- [b] Pancreas
- [c] Adrenal gland
- [d] None of these

[viii] The first theory of evolution:

- [a] Lamarckism
- [b] Darwinism
- [c] Mendel's law
- [d] Newton's law

[ix] The scientific name of garden pea plant is:

- [a] Pisum senta
- [b] Pisum sativum
- [c] Pisu sativum
- [d] Ficus sativum

[x] Assertion [A]: Monohybrid cross produces four types of gametes.

Reason [R]: Because in this type of cross inheritance of two pairs of alleles of different traits is studied.

- [a] Both [A] and [R] are true
- [b] [A] is true and [R] is false
- [c] Both [A] and [R] are false
- [d] [A] is false and [R] is true

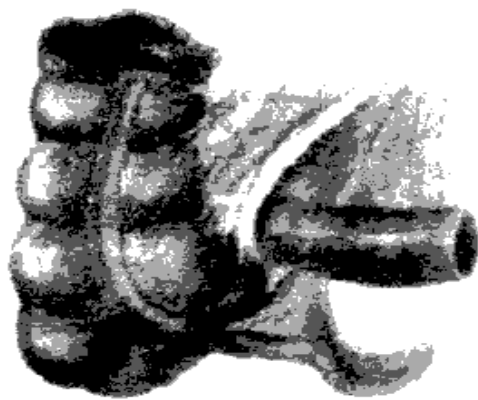
[xi] Raju tried to match certain reactions with their sites. The Tabulation is given below.

	Reactions	Sites
P	Light reaction	Thylakoid
Q	Dark reaction	Mitochondria
R	Photochemical phase	Grana
S	Biosynthetic phase	Stoma

Identify the correct pair:

- [a] P and R
- [b] Q and S
- [c] R and S
- [d] P and S

[xii] This structure is an example of:



[a] Vital organ

[b] Sense organ

[c] Organelle

[d] Vestigial organ

[xiii] Identify the ancestor of humans shown in the figure:



[a] Australopithecus

[b] Ramapithecus

[c] Homohabilis

[d] Neanderthal man

[xiv] Sunil is diagnosed by disproportionate growth of the bones of hands, feet, cheek and jaws. It is known as:

[a] Acromegaly

[b] Gigantism

[c] Dwarfism

[d] Cretinism

[xv] Mohan is unable to differentiate certain colours. This condition is called:

[a] Night blindness

[b] Colourblindness

[c] Cataract

[d] Squint

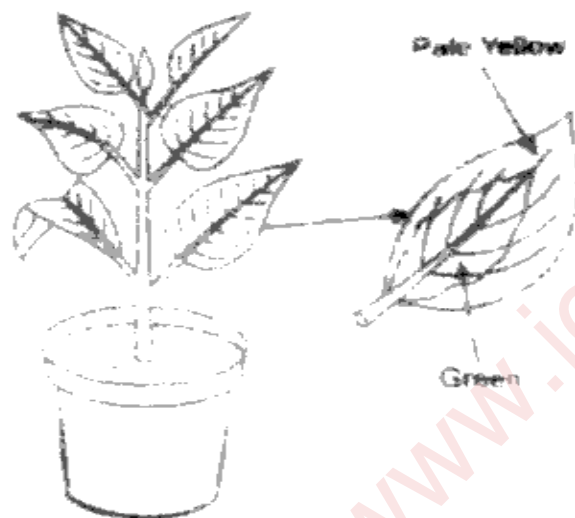
Question - 2

[i] Name the following:

[5]

a. The inflammation of meninges.

- b. The process of maintaining the water and salt contents in the body.
  - c. The pigment of cone cells of retina
  - d. An example of industrial melanism that was recognised for Darwinian natural selection.
  - e. A growth inhibiting hormone in plants.
- [ii] The diagram given below represents an activity for photosynthesis. Study the same and answer the questions that follow: [5]



Take a potted plant with variegated leaves. It should be kept in a dark room for two days to [a] \_\_\_\_\_. The leaves expose the plant to the sunlight for four to six hours. Pluck a leaf and boil it for two minutes in water. Now boil it with [b] \_\_\_\_\_ to remove chlorophyll, again dip the leaf in hot water and add Iodine solution in it. The area with green patches on the leaf turns [c] \_\_\_\_\_. Whereas the non-green patches turns [d] \_\_\_\_\_. By this experiment we can prove that [e] \_\_\_\_\_ is necessary for photosynthesis.

[iii] Choose the ODD term out from each of the following set of term. Mention the category to which the remaining three belong: [5]

- a. Tympanum, Pinna, Auditory canal, Malleus.
- b. Auxin, Cytokinins, Glucagon, Gibberellins.
- c. Myopia, Hyperopia, Cretinism, Astigmatism.

- d. Hypothalamus, Pons, Corpus callosum, Macula lutea
- e. Ureter, Urethra, Uterus, Urinary bladder
- [iv] Read the explanation given below and name the structure: [5]


Example: The covering membrane of lungs.

Answer: Pleura

- a. The coiled structure which is required as a support for the growth of climbing plants.
- b. It is the part of nephron where more water is reabsorbed.
- c. The gland that is located below the larynx.
- d. These are in the ear for dynamic balance.
- e. These are called the hereditary units and are located in chromosomes.

[v] Given below is a structure of human eye. Match the structure marked [a] to [e] with their correct functions: [5]

Example: f - 6.

Structure of Human Eye	Functions
	<ol style="list-style-type: none"> <li>The layer protects the eye ball</li> <li>It refracts light and helps in focusing</li> <li>It is the area of best vision</li> <li>It is responsible to keep the lens in position</li> <li>This structure carries impulses to brain</li> <li>It partially covers the lens</li> </ol>

## SECTION - B (40 MARKS)

(Attempt any four questions from this section)

### Question- 3

- [i] Define phototropism [1]
- [ii] Write two symptoms of Addison's disease [2]
- [iii] Define apical dominance. Name the plant hormone that promotes Apical dominance. [2]
- [iv] Write two functions of Cytokinins. [2]

- [v] Nisha observed some bending movement of roots from a plant as shown below in the diagram. [3]



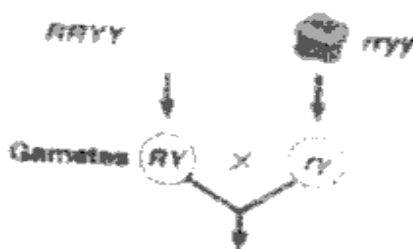
- [a] Identify the movement  
[b] Name the plant hormone that promotes cell division in roots.  
[c] Define parthenocarpy.

#### Question- 4

- [i] Expand ACTH. [1]  
[ii] State the exact location of the following.  
[a] Pituitary gland [b] Eustachian tube [2]  
[iii] Give two processes that release and put back carbon dioxide into the atmosphere. [2]  
[iv] Mention two hormones of pancreas. [2]  
[v] Draw a neat and labelled diagram of chloroplast. [3]

#### Question- 5

- [i] What is an allele? [1]  
[ii] Mendel selected pea plant for his experiment. Give two reasons. [2]  
[iii] Differentiate between Genotype and Phenotype (Definition). [2]  
[iv] Give two functions of cerebrospinal fluid. [2]  
[v] Study the picture given below and answer the questions. [3]



- [a] Give the genotype of F1 progeny.  
 [b] Write phenotypic ratio of F2 progeny.  
 [c] State Mendel's Law of Dominance.

### Question- 6

- [i] Define mutation. [1]  
 [ii] Give two examples of conditioned reflex. [2]  
 [iii] Write the full form of  
 [a] IAA [b] NADP [2]  
 [iv] Define the terms  
 [a] Photolysis. [b] Reflex action. [2]  
 [v] Draw a well labelled diagram to show the longitudinal section of kidney. [3]

### Question- 7

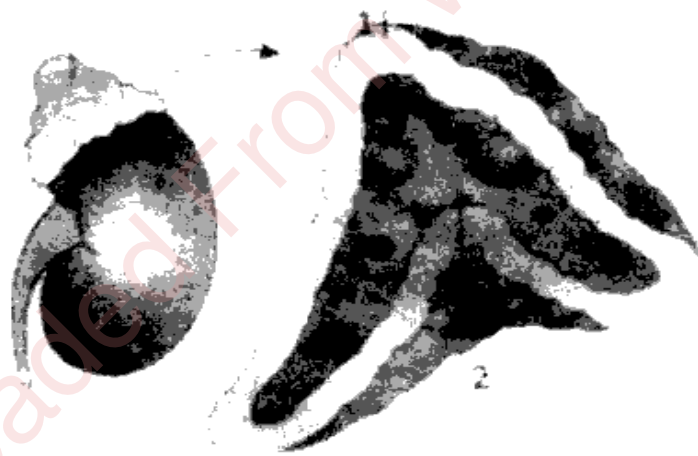
- [i] What is accommodation of eye? [1]  
 [ii] State two symptoms of Exophthalmic goitre. [2]  
 [iii] Differentiate between Diabetes mellitus and Diabetes insipidus. [Hormones that cause] [2]  
 [iv] State the function of  
 [a] Ureter. [b] Hypothalamus [2]  
 [v] The diagram given here represents the structure found in the inner ear. Copy the diagram and label the following structures. [3]



- [a] Cochlea
- [b] Semicircular canals
- [c] Utriculus and Sacculus

**Question- 8**

- [i] Differentiate between myopia and hyperopia [lens used for correction] [1]
- [ii] A person after consuming alcohol walks clumsily. Give reason. [2]
- [iii] State two functions of cerebrum. [2]
- [iv] Given below are two statements which are incorrect. Rewrite the correct statements by changing the underlined words. [2]
  - [a] The evolutionary stage of human in between Ramapithecus and Homo habilis is Homoerectus.
  - [b] The process in which new species develops from the existing species is known as genetics.
- [v] The figure given below shows an endocrine gland. Study the same and answer the questions given below: [3]



- [a] Name the gland.
- [b] State two types of hormones secreted by part labelled 1.
- [c] The hormone secreted by the part labelled 2 is called emergency hormone. Why?