

PRE- BOARD II 2025-26

Time : 2 Hrs

Class X
Biology

M.M: 80

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 is compulsory. Attempt **any four** questions from **Section B**.

The intended marks for questions or parts of questions are given in brackets ().

Section-A [40 Marks]

[Attempt all questions from this Section]

Question 1

Choose the correct answers to the question from the given options

(15) (i) A

gland which secretes enzymes and hormones both is :

(a) Pancreas (b) Pituitary (c) Adrenal (d) Thyroid

(ii) The central cavity of the brain is termed as :

(a) Thalamus (ii) Ventricle (iii) Hypothalamus (iv) Auricle

(iii) Fertilization takes place in :

(a) Fallopian tube (b) Uterus (iii) Vas deference (iv) Vagina

(iv) The green house effect leads to

(a) Thermal pollution (b) Oil spills (c) Droughts (d) Global warming

(v) **Assertion (A) : The population of India increased rapidly after the 20th century.**

Reason (R):Improved medical facilities and public health measures reduced the death rate.

(a) A is True and R is False (b) A is False and R is True

(d) Both A and R are True (e) Both A and R is False

(vi) An example of a biodegradable substance is

(a) Aluminium (b) Paper (c) Plastic (d) Steel

(vii) Marine fish when placed in tap water bursts because of

(a) Diffusion (b) Plasmolysis (c) Endosmosis (d) Exosmosis

(viii) **Assertion (A) : The potometer does not measure the transpiration rate accurately.**

Reason (R) : Potometer usually measures the rate of water uptake.

(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

(ix) A farmer wants to increase the size of her strawberry fruits to meet market demands . Which plant hormone should she use to achieve this.

(a) Gibberellins (b) Auxins (c) Cytokinesis (d) Ethylene

(x) The statistical study of human population is called

(a) Population density (b) Demography (c) Mortality (d) Natality

(xi) The part of nephron where ultra filtration occurs.

(a) Bowman's capsule (b) Vasa recta (c) DCT (d) Loop of Henle

(xii) Ganong's Potometer is used to study

(a) Photosynthesis (b) Rate of uptake of water (c) Exosmosis (d) Guttation

(xiii) **Assertion (A) : The muscles of right ventricle are strongest.**

Reason (R) : They pump the oxygenated blood to all parts of the body through aorta.

(a) Both A and R are True (b) Both A and R are False

(c) A is True and R is False (d) A is False and R is True

(xiv) Haploid number of chromosomes are found in

(a) Nephrons (b) Neurons (c) Skin cells (d) Sperms

(xv) The kind of cells that initiate blood coagulation.

(a) Monocytes (b) Lymphocytes (c) Leucocytes (d) Thrombocytes

Question:2

(i) **Name the following.**

(a) A genetic disorder in which the blood does not clot.

(b) A solution whose concentration is greater than that of the cell sap.

(c) The scattered golgi bodies in plant cells.

(d) The interconnection between the two lobes of thyroid gland.

(e) The specific pigment found in the urine.

(ii) **Arrange and rewrite the terms in their correct order so as to be in logical sequence.**(5) (a)

Renal artery, Urethra, Ureter, Kidney, Urinary bladder.

(b) Axon endings, Dendrites, Axon, Perikaryon, Dendron.

(c) Conjunctiva, Retina, Cornea, Optic nerve, lens

(d) Implantation, Ovulation, Child birth, Gestation, Fertilization.

(e) Watermolecules, Oxygen, Grana, Hydrogen and hydroxyl ions, Photons

(iii) **Match the items given in column I with most appropriate ones in column II.** (5)

Column A

Column B

(i) Cranial nerves

(a) Testosterone

(ii) Sneezing

(b) Natural reflex

(iii) Spinal nerves

(c) 12 Pairs

(iv) Acetyl choline

(d) Prolactin

(v) Leydig cells

(e) Neurotransmitter

(f) 18 pairs

(g) 31 pairs

(h) Conditioned reflex

(iv) **Read the explanation given below and name the structure .**

(i) Thin membrane covering the white part of the eye and lining the inside of the eyelids.

(ii) Membrane that protects the foetus in the uterus.

(iii) The structure where photophosphorylation takesplace.

(iv) Part of the nephron is responsible for the regulation of water and electrolyte balance in the body.

(v) The structure that covers the axon and helps speedup nerve impulse transmission.

(v) **State the exact location of the following structures.**

(a) Amniotic fluid (b) Adrenal gland (c) Acrosome (d) Corpus collosum (e) Loop of Henle

Section-B [40 Marks]

(Attempt any four questions from this section) Question:3

(i) Explain the term Ascent of sap.

(1)

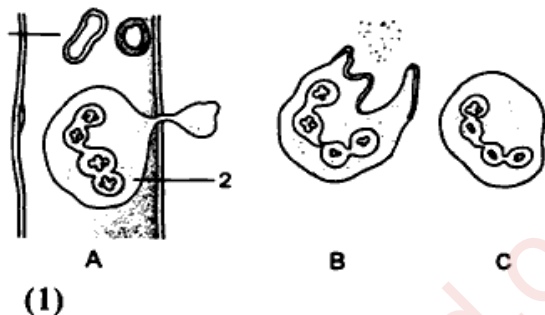
(ii) Name the type of cell division that occurs during

(a) Growth of shoot (b) Formation of pollen grains.

(2)

- (iii) Mention two significant advantages of photosynthesis to the living world as whole. (2)
- (iv) A student suffers from cataract .What happens in this defect, and how is it treated ? (2)
- (v) Observe the diagram and answer the questions that follow (3)

- (a) Identify the process shown in figure A
- (b) What are the structure labelled 1 and 2
- (c) What is the process shown in figure B and C



Question: 4

- (i) Why cerebrum has a large number of convolutions ? (1)
- (ii) Mention the significance of the following (2)
- (a) Transpiration (b) Pericardial fluid
- (iii) State two objectives of Swachh Bharat Abhiyan (2)
- (iv) Expand the abbreviation – ADH and CFC (2)
- (v) Draw neat labelled diagram of a cross section of an artery and vein. (3)

Question: 5

- (i)What is meant by the term destarched plant ? How can a plant be destarched. (1)
- (ii) Colour blindness is more common in men than in women. Give reason. (2)
- (iii)State the difference between the Plasma and Serum. (2)

(iv) Write any harmful effects of soil pollution and suggest any two method of controlling soil (2)

(v) Samarth was writing a composition on “ The importance of Education in Life “ (3)

- (a) Name the part of the brain that Samarth uses for writing the composition.. .
- (b) Is it a voluntary or involuntary action ?
- (c) Trace the nervous pathway using the following terms Muscle of the hand , Sensory nerves, Finger tips, Motor nerves, Brain.

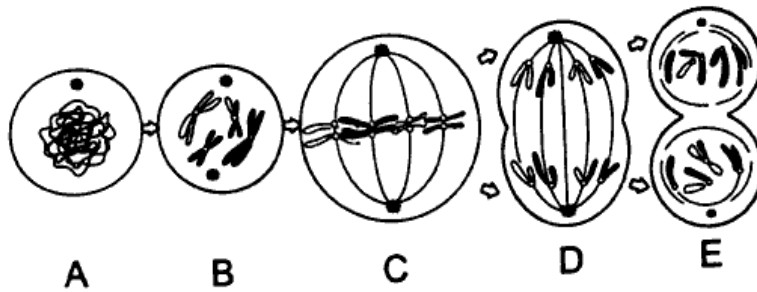


Question: 6

- (i) State Mendel’s law of segregation. (1)
- (ii) What are nastic movements ? Give one example (2)
- (iii) Differentiate between the terms Systolic blood pressure and Diastolic blood pressure. (2)
- (iv) What is the significance of selective reabsorption in the nephron. (2)
- (v) Draw a neat labelled diagram of the inner ear. (3)

Question: 7

- (i) What is the scientific name of the pea plant that Mendel used for his experiments? (1)
- (ii) Mention any two functions of cerebellum. (2)
- (iii) Explain the term “Gestation”. How long does gestation last in humans? (2)
- (iv) Which blood group’s RBCs are without antigens? What is the blood group also known as? (2)
- (v) Observe the diagram and answer the questions that follow: (3)



- (a) Identify the stages labelled as A, B, C, D and E.
 (b) What is the specific feature of stage C?
 (c) Which stage is also called the resting phase and why?

Question: 8

(i) Why hormones are called chemical messengers? (1) (ii)

Given below are the two statements which are incorrect. Rewrite the correct statements. (2) (a) The pigment urochrome is the breakdown product of haemoglobin of dead RBCs.

(b) The rate of photosynthesis continues to rise as long as the intensity of light rises.

(iii) Imagine one cell (A) has undergone one mitotic division and another cell (B) has completed its meiotic division. How many daughter cells would the two produce? (2)

Cell A _____

Cell B _____

(iv) Name the mineral elements required for Clotting of blood (2) (a)

(b) Synthesis of thyroxine

(v) Observe the given diagram and answer the questions that follow (3)



(a) What does the figure depict?

(b) State the features of the figure (Cranial capacity, Height, Development of chin, Body hair)