

Std.: 10th ICSE

Sub: Biology



Marks : 80

Time : 2 Hrs.

Date : 31-12-2022

Pre-Board Test

Set-1

General Instructions:

- (i) Answers to this Paper must be written on the paper provided separately.
- (ii) You will not be allowed to write during first 15 minutes. This time is to be spent in reading the question paper.
- (iii) The time given at the head of this Paper is the time allowed for writing the answers.
- (iv) **Section A** is compulsory. Attempt **any four** questions from **Section B**.
- (v) The intended marks for questions or parts of questions are given in brackets [].

SECTION - A

(Attempt **all** questions from this Section.)

1. Select the correct answers to the questions from the given options. (Do not copy the question. Write the correct answer only) : [15]

(i) Veins are:

- (a) Thin walled and blood flows under diminished pressure.
- (b) Thick walled and blood flows under high pressure.
- (c) Thin walled and blood flows under high pressure.
- (d) Thick walled and blood flows under diminished pressure.

(ii) Which term is used to refer the transmission of characters from the parents to their offspring?

- (a) Evolution
- (b) Heredity

(c) Variation

(d) All the above

(iii) Guard cells are present:

- (a) Around the root hairs.
- (b) Around the lenticels.
- (c) Around the thylakoids.
- (d) Around the stoma.

(iv) In a humans, ovum consists of:

- (a) 23 pairs of autosomes
- (b) 22 pairs of autosomes and 1 pair of sex chromosomes
- (c) 22 autosomes and 1 Y-chromosome
- (d) 22 autosomes and 1 X-chromosome

(v) The hormone secreted by posterior pituitary gland is:

- (a) Growth hormone
- (b) Antidiuretic hormone

- (c) Adrenocorticotrophic hormone
(d) Luteinizing hormone
- (vi) A plant is kept in a dark cupboard for about 48 hours before conducting any experiment on photosynthesis to:
(a) remove starch from the plant.
(b) ensure that starch is not translocated from the leaves.
(c) remove chlorophyll from the leaf of the plant.
(d) remove starch from the experimental leaf.
- (vii) Which of the following steps is an incorrect way to treat industrial wastes?
(a) Recycle the wastes.
(b) Discharge the wastes into the river.
(c) Treat and neutralize the harmful chemicals in the wastes.
(d) None of these.
- (viii) What is the expansion for MTP?
(a) Medical Termination of Parturition
(b) Mechanical Transfer of Pollen
(c) Medical Termination of Pregnancy
(d) Maternally Transmitted Pathogens
- (ix) The process of release of egg from the ovary is called:
(a) Menstrual cycle
(b) Ovulation
(c) Fertilisation
(d) Implantation
- (x) The part of the eye which is grafted in a needy patient from a donated eye is
(a) Conjunctiva
(b) Cornea
(c) Choroid
(d) Ciliary muscles
- (xi) Which part of our ear is shaped like a snail shell?
(a) Semi-circular canals
(b) Cochlea
(c) Stapes
(d) Eustachian tube
- (xii) The reflex action is controlled through:
(a) Central nervous system
(b) Peripheral nervous system
(c) Autonomic nervous system
(d) None of the above
- (xiii) Which of the following is not correctly matched?
(a) Abscisic acid- Stomatal closure
(b) Gibberellic acid – Leaf fall
(c) Cytokinin – Cell division
(d) IAA- Cell wall elongation

(xiv) Which term is used to refer the loss of water in its liquid phase from special openings of veins near the tip of grass blades?

- (a) Guttation
(b) Exudation
(c) Girdling
(d) Transpiration

(xv) Ultrafiltration occurs in

- (a) Bowman's capsule
(b) Proximal convoluted tubule
(c) Henle's loop
(d) Distal convoluted tubule

2. (i) Name the following : [5]

- (a) Differences occurring within offspring of the same progeny.
(b) The part of kidney tubules where the term urine is first used for the fluid in it.
(c) The condition which results in the abnormally long bones, long lower jaw bone due to hypersecretion of pituitary hormone.
(d) A water pollutant.
(e) A method of contraception in which the sperm duct is cut and ligated.

(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) Absorbs energy, Photons, Stoma, - Grana, Splits water molecules
(b) Karyokinesis, S-phase, Cytokinesis, G1-phase, G2-phase
(c) Right Atrium, Left Atrium, Lungs, Right Ventricle, Left Ventricle
(d) Vagina, Ovary, Uterus, Cervix, Oviduct.
(e) Spinal cord, Motor neuron, Receptor, effector, Sensory neuron.

(iii) Match the items given in Column I with the most appropriate ones in Column II and rewrite the correct matching pairs. [5]

Column A	Column B
(i) Pituitary gland	(a) Testosterone
(ii) Sulphur dioxide	(b) Calcium
(iii) Seminiferous tubules	(c) Growth hormone
(iv) Clotting of blood	(d) Acid rain
(v) Guttation	(e) Sperms

	(f) Global warming
	(g) Magnesium
	(h) Hydathodes

- (iv) Choose the odd one out from the following terms and name the category to which the others belong: [5]
- (a) ACTH, TSH, ADH, FSH
 (b) Sewage, Newspaper, Styrofoam, Hay.
 (c) Cerebrum, Cerebellum, Thalamus,

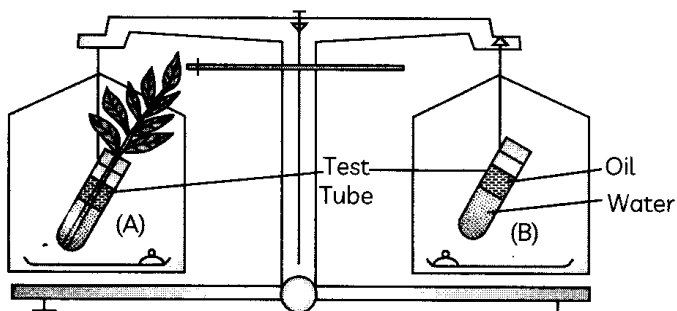
- Hypothalamus.
 (d) Haemophilia, Colour blindness, Albinism, Night blindness
 (e) Gums, Resins, Auxin, Latex

- (v) State the exact location of the following structures: [5]
- (a) Grana
 (b) Ciliary body
 (c) Hepatic portal vein
 (d) Sertoli cells
 (e) Pituitary gland.

SECTION - B

(Attempt **any four** questions from this Section.)

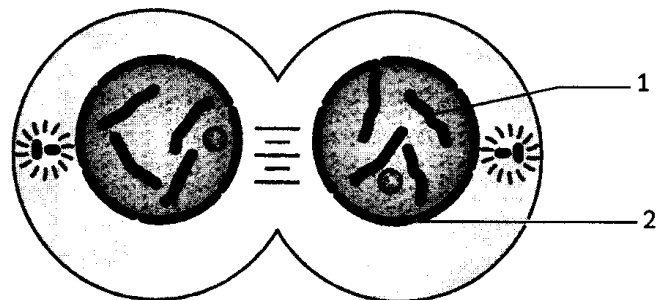
3. (i) Define Wilting. [1]
 (ii) Give difference between Photolysis and Photophosphorylation. [2]
 (iii) Why rice plants infected by fungus *Gibberella fugikuroi* grows foolishly tall? [2]
 (iv) What are sex chromosomes? [2]
 (v) The figure given below represents an experimental set up with a weighing machine to demonstrate a particular process in plants. The experimental set up was placed in bright sunlight. Study the diagram and answer the following questions. [3]



- (a) Name the process intended for study.
 (b) When the weight of the test tube (A and B) is taken before and after the experiment, what is observed? Give reasons to justify your observation in A and B.
 (c) What is the purpose of keeping the test tube B in the experimental set up?

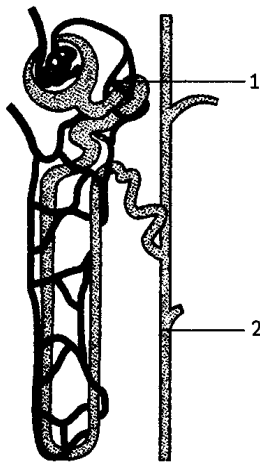
4. (i) Explain ABA [1]
 (ii) Name two genetic disorders commonly seen in human males. [2]

- (iii) State any two adaptations in plants which favour the process of photosynthesis. [2]
 (iv) Why animals owe their existence to chlorophyll? [2]
 (v) Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow. [3]



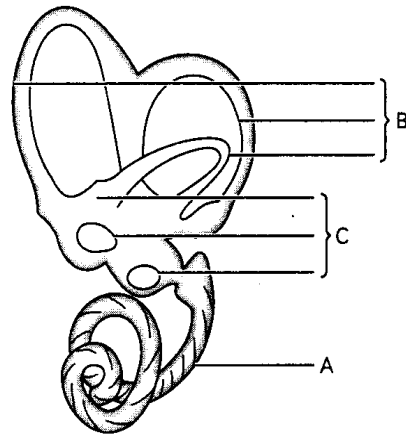
- (a) Identify the stage giving suitable reasons.
 (b) Name the parts numbered 1 and 2.
 (c) What is the technical term for the division of nucleus?

5. (i) Define Micturition. [1]
 (ii) What causes the heart sounds 'LUBB' and 'DUBB'. [2]
 (iii) Write the function of the following :
 (a) Suspensory ligament
 (b) Semicircular canals [2]
 (iv) Explain the term 'Hormone'. What is the role of tropic hormones in the human body? [2]
 (v) The diagram given below is that of a structure present in a human kidney. Study the same and answer the questions that follow: [3]



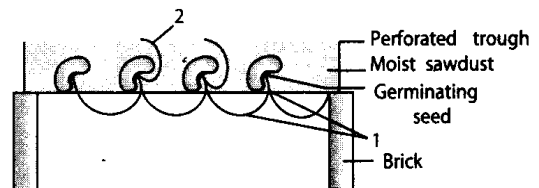
- (a) Name the structure represented in the diagram.
- (b) What is the liquid entering in part '1' called?
- (c) What is the fluid that comes to part '2' called?
Name the main nitrogenous waste in it.

6. (i) What are chromosomes? [1]
- (ii) Distinguish between prophase and telophase of mitosis [2]
- (iii) State any two functions of Cerebrospinal fluid. [2]
- (iv) Why colour blindness is more common in men than in women? [2]
- (v) Given below is the diagram of a part of the human ear. Study the same and answer the questions that follow. [3]
- (i) Give the collective biological term for Malleus, Incus and Stapes.
- (ii) Name the parts labelled A, B and C in the diagram.
- (iii) State the functions of the parts labelled 'A' and 'B'.



Labyrinth of the inner ear

7. (i) Define Accommodation [1]
- (ii) Why education is very important for population control? [2]
- (iii) State any four functions of placenta. [2]
- (iv) What is the difference between DNA and chromosome? [2]
- (v) Draw neat and labelled diagrams of cross section of spinal cord. [3]
8. (i) Define biomedical waste. [1]
- (ii) When we uproot a plant from the soil, its leaves soon wilt. Why? [2]
- (iii) Differentiate between Amnion and Chorion. [2]
- (iv) What are the control measures for preventing global warming? [2]
- (v) Given below is an experimental set up to demonstrate a particular tropic movement in germinating seeds. Study the diagram and answer the questions that follow. [3]



- (a) Label the parts 1 and 2.
- (b) Name the tropic movement shown by part 1.
- (c) Part 1 is affected by two stimuli. Name them.