

CLASS : 10
DATE : 16th January, 2006

TIME : 1 hr. 30 min.
MARKS : 80

BIOLOGY

There are 2 sections in this paper. Section I is compulsory. From Section II, answer any 4 questions

Section-I.

Q.I.A. Name the following :-

- 1) The tissue joining the two cerebral hemispheres.
- 2) The fluid passing through arteries and veins.
- 3) The covering of the lungs.
- 4) The cells of the pancreas that secrete insulin.
- 5) The indicator used to test the presence of starch in leaves.
- 6) The indicator used to test transpiration in leaves.
- 7) Fermentation is this type of respiration.
- 8) The structure in the human sperm that contains chemicals and enzymes for breaking down the egg covering.

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B. Given below is a table that gives the name of the organ and its function in brief. Complete the table, as shown in the example below:-

e.g. Xylem ... Conducts water in plants.

- 1) _____ ... Controls opening and closing of stomata.
- 2) Alveoli ... _____
- 3) _____ ... Heat controlling centre of the body.
- 4) Iris ... _____
- 5) Root hair ... _____
- 6) _____ ... Protein synthesis in cells.
- 7) Cutin / Cuticle layer ... _____
- 8) _____ ... Maintains equal air pressure on both sides of the eardrum.

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C. Match the columns :-

A

Pleura
Capsule
Pericardium
Plasmalemma
Conjunctiva
Tympanum
Melanin
Delta cells

B

Skin.
Eye
Kidney
Pancreas
Heart
Lungs
Cell
Ear.

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D. Where in the body are these fluids found and what is their function? (give ONE important function):-

- 1) Cerebro-spinal fluid
- 2) Pericardial fluid
- 3) Lymph
- 4) Amniotic fluid.

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E. Draw neat labelled diagrams of :-

- 1) A neuron
- 2) An experiment to demonstrate that sunlight is necessary for photosynthesis.

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SECTION - II

Q.II.A. Observe Fig. I to answer the questions given below:-

- 1) Identify the diagram.
- 2) Identify parts 1,2,3.
- 3) Where in the body is this organ found?
- 4) What is its function?

½

1½

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pg.2/.

- B. Observe Fig. II to answer the questions given below:-
- 1) Label parts 1, 2, 3, 4. 2
 - 2) Give the number of that part in the figure, that gives colour to the eye. $\frac{1}{2}$
 - 3) What is the function of part 2 ? 1
 - 4) Give the function of part 3. 1
 - 5) What is produced in part 1 ? $\frac{1}{2}$
 - 6) Name the ailment caused when inflammation of the following structures occurs :- 1
 - a) Conjunctiva
 - b) Meninges
- Q. III.
- A. Define :- 4
- 1) Transpiration
 - 2) Cell
 - 3) Excretion
 - 4) Translocation.
- B. Give one point of difference between :- 6
- 1) Antibiotic and Antibody
 - 2) Natural Immunity and Acquired Immunity
 - 3) Manure and Bio-fertilizers
 - 4) Vasectomy and Tubectomy
- Q. IV.
- A. Observe Fig. III and answer the questions given below:-
- 1) What is being done in Fig. III ? 1
 - 2) What is being done in Stage B ? Why ? 1
 - 3) What is the chemical that is added to the leaf in Stage C ? $\frac{1}{2}$
 - 4) Between Stage A and Stage B, what is done to the leaf ? Why ? 1
 - 5) In what form is water given out during guttation ? $\frac{1}{2}$
- B. Refer to Diagram IV to answer the questions given below:-
- 1) Label parts 1,2,3,4,5,6. 2
 - 2) A few parts are missing from the figure. Pick out any 2 missing parts and state their function (one function each). 2
 - 3) Draw a neat labelled diagram of the 3 main types of muscles found in the human body. 2
- Q. V.
- A. Where are the following structures present and what is their function? 6
- 1) Chromosomes
 - 2) Tympanum
 - 3) Graafian follicle.
- B. Give reasons for : 4
- 1) A foetus respire, though it does not breathe.
 - 2) A person who is drunk cannot walk properly nor speak properly.
- Q. VI.
- A. Refer to Fig. V. to answer the questions given below:-
- 1) Identify the figure. $\frac{1}{2}$
 - 2) Label parts 1 to 7. $3\frac{1}{2}$
 - 3) What part of the organ is represented by X and Y ? 1
 - 4) Give 2 differences between renal artery and renal vein. 2
- B. Fig. VI. gives the various stages involved in blood clotting. Fill in the boxes and complete the stages :- $2\frac{1}{2}$
- C. Name the clear liquid left behind after clotting of blood occurs. $\frac{1}{2}$

(20 marks - Internal assessment)

FIG. I.

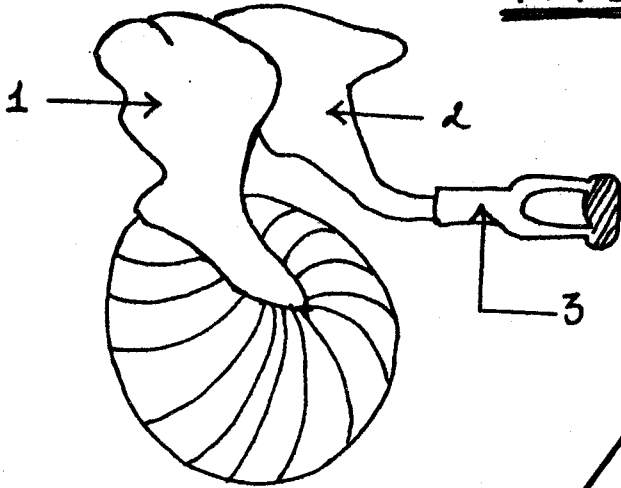


FIG. -I.

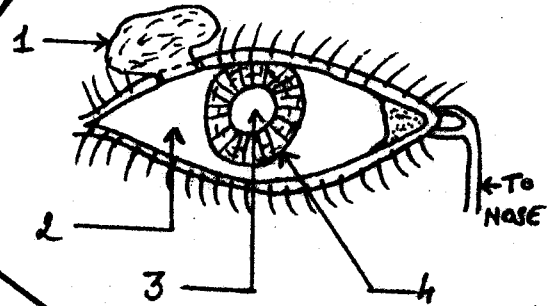


FIG. -VI.

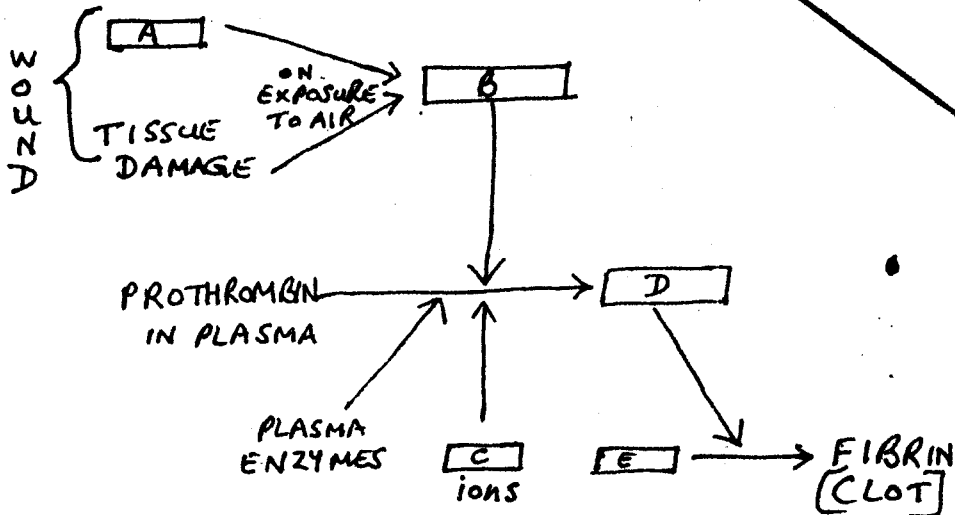


FIG. -III

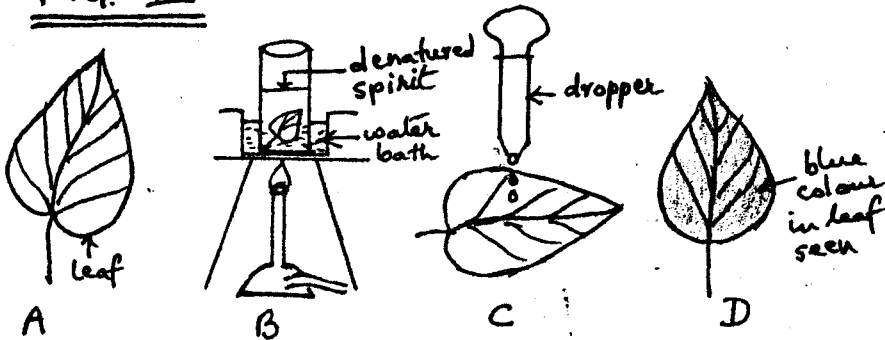


FIG. -V

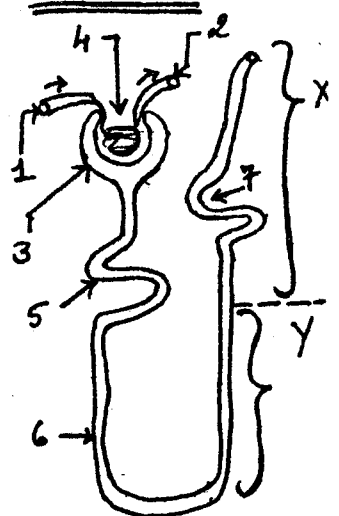


FIG. -IV

