

This Question Paper contains 4 Printed Pages.

20E(A)

GENERAL SCIENCE, Paper - II

(Biological Science)

(English version)

Parts A and B

Time : 2 hours 45 min.]

[Maximum Marks : 40

Instructions :

1. 15 minutes are allocated to read the question paper and 2.30 hours are allocated to write answer.
2. Write the answers to the questions under **Part-B** on the Question paper itself and attach it to the answer book of **Part-A**.
3. **Part-A** consists of **three** sections. Answer the questions under **Part-A** on a separate answer book.
4. **Part-B** (Bit paper) should be tagged to the answer sheet.

Part - A

Time : 2 hours

Marks : 30

SECTION - I

NOTE : (i) Answer the following questions in one or two sentences. $4 \times 1 = 4$
(ii) Each question carries **ONE** mark.

1. What are the end products of Aerobic and Anaerobic Respirations ?
2. In which organisms, blood does not supply the Oxygen ?
3. What is Colostrum ?
4. Why do we use KOH in Mohl's half leaf experiment ?

20E(A)

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SECTION - II

NOTE : (i) Answer the following questions in 3 to 4 sentences. **5×2=10**
 (ii) Each question carries **TWO** marks.

5. What will happen if pulmonary veins are tied with a thread ?
6. Observe the diagram and answer the following.



- (i) Write any two food chains from the diagram.
- (ii) What are the secondary consumers in the food chain that are written by you ?
7. Suggest some precautions to avoid Cardiac problems.
8. What questions do you ask a nephrologist to know more about kidney related diseases ?
9. Prepare some slogans about 'VANAM - MANAM' programme to display in your school rally.

SECTION - III

NOTE : (i) Answer the following questions in 8 to 10 sentences.

Each question has internal choice.

4×4=16

(ii) Each question carries **FOUR** marks.

10. (A) Explain the structure of cell organelle that performs the Photosynthesis, with the help of a labelled diagram.

OR

(B) Name the important parts of the brain and write the functions of fore-brain.

11. (A) You have done an experiment in your school laboratory to prove Carbondioxide is evolved during respiration. Now answer the following questions.

(i) List out the apparatus used in this experiment.

(ii) Write the procedure of the experiment.

OR

(B) "Taste is something connected to the tongue and the palate." Write an activity to prove it.

12. (A) Read the information about Kolleru lake in the given table and answer the following question.

Classes	Area in 1967 (Km ²)	Area in 2004 (Km ²)
Lake-water spread area	70.70	62.65
Lake with sparse weed	0	47.45
Lake with dense weed	0	15.20
Lake-liable to flood in rainy season	100.97	0
Aquaculture ponds	0	99.74
Rice fields	8.40	16.62
Encroachment	0.31	1.37
Total	180.38	180.38

(a) In which year, lake water spread area is more ?

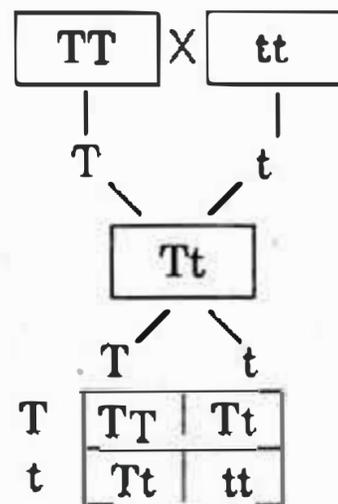
(b) Why do you think weeds are more in the lake ?

- (c) Guess the reasons for decrease in the lake area.
 (d) What measures are to be taken to control pollution in the lake ?

OR

(B) Observe the flow-chart and answer the following.

- (i) What does the flow-chart represent ?
 (ii) What is the Phenotype characters in F_1 generation ?
 (iii) What is the Genotype, Phenotype ratio of F_2 generation ?
 (iv) What laws of inheritance did you understand by this flow-chart ?

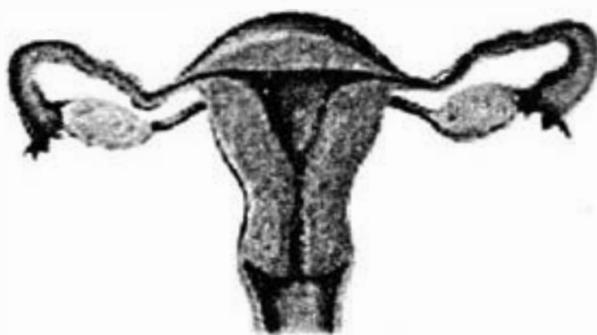


13. (A) Which diagram do you draw to label these parts ?

1. Bowman's capsule. 2. Uriniferous tubule. 3. Collecting tubule.
 Draw the diagram and label the parts.

OR

(B) Observe the diagram and answer the following.



- (i) Which part produce the female gamete ?
 (ii) Where does the fertilization takes place in female reproductive system ?
 (iii) Where does the embryo develops until it is ready to born ?
 (iv) In some cases doctor's cut and tie the cut ends of the fallopian tubes. What is the name of surgery ?