

MODEL PAPER-1
S.S.C. PUBLIC EXAMINATIONS-2021
BIOLOGY
(English Medium)

Class: X

(Max.Marks: 50)

Time: 2 Hr. 45 Min

Instructions:

1. There are four sections and 33 questions in this paper.
2. Answer should be written in a given answer booklet
3. There is internal choice in Section-IV
4. Write all the questions visible and legibly.
5. 15 Minutes are given for reading the questions paper and 2.30 hours are given for answering questions.

SECTION-1

NOTE:1. Answer all the questions

2. Each question carries 1/2 mark

12 x 1/2 = 6 M

1. Identify the hormones which are the growth inducers in plants.

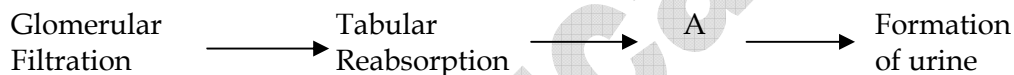
Group-I

Adrenalin, Thyroxin, Insulin

Group-II

Gibberellin, Auxin, Cytokinin

2. Observe the flow chart and identify 'A'



3. Fibrin is an enzyme, which helps in coagulation of blood. Name another enzyme which is involved in this process.
4. Read the sentence, find the error in the underlined word. Rewrite it correctly.
Ghrelin Suppresses the hunger pangs
5. Your friend has collected hydrilla plant, test tube, beaker and other things. Can you name the experiment to use these?

6. I am an apparatus, doctors use me to find a person's blood pressure. Who am I?

7. Observe the diagram and identify the "X" part.



Answer 8 and 9 questions to complete the passage.

Cytokinins promote cell (8), promotion of sprouting of lateral buds, opening of (9).

10. What is the type of movement that roots show towards water called?

11. Find out the mis-matched one.

1. Fission - Paramecium
2. Budding - Yeast
3. Fragmentation - Planaria

12. What is the total capacity of human lung?

SECTION-II

NOTE: 1. Answer all the questions 8x1=8M
 2. Each question carries 1 Mark

- 13. Food sometimes enters the windpipe and causes choking. How does it happen?
- 14. Why shouldn't we grow the casuarina trees near the sea shore?
- 15. If the tail is cut in the lizard, it develops again. Give the reasons.
- 16. What is the job of amniotic sac??

- 17. What does the given logo indicates?
 What does it mean?



- 18. Fermented idli, dosa produce smell. Name the micro organism responsible for producing such smell.
- 19. How does root pressure help to send the water upwards?
- 20. Write the name of the nerve given in the diagram and write its function.



SECTION-III

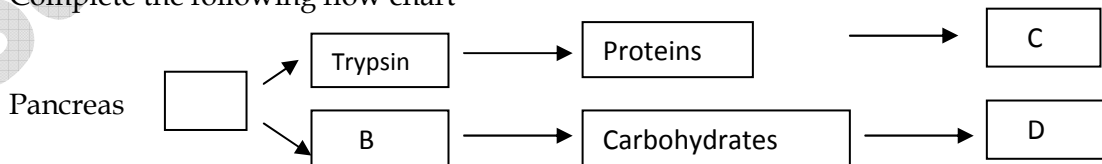
NOTE: 1. Answer all the questions 8x2=16M
 2. Each question carries 2 Marks

- 21. How will we get the desired useful traits with the help of two selected traits by using grafting method?
- 22. Which type of questionnaire would you prepare to ask a doctor who is conducting family planning medical camp?
- 23. Fill in the a,b,c,d blanks

Phyto Harmones	Functions
Auxins	A
b	Cell Division
c	Falling of leaves
Ethylene	d

- 24. Which items do you take into consideration to explain the differences between arteries and veins?
- 25. What are the differences identified by mendel between parent and F2 generation?
- 26. In the given two plants, butterflies visit only one plant. Even though second plant contains flowers they are not visiting why?

- 27. Complete the following flow chart



- 28. If the theory of inheritance of acquired characters proposed by Lasmarck was true how would the world be?

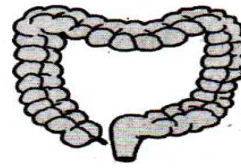
SECTION-IV

NOTE: 1. Answer all the questions

5x4=20M

2. Each question carries 4 Marks

29. Observe the given part of the digestive system.
What is it? What is its role during digestion?



OR

How is using of toxic material affecting the ecosystem? Write a short note on bioaccumulation and bio-magnification

30. Write the procedure on conducting the test on acid and leaf to know about the effect of acid in stomach

OR

We have conducted the experiment that proves the release of O₂ during photo synthesis.

- i) What are the plants that are used for this experiment? Where do they grow?
 - ii) How did you conduct the above experiment? In which context you noticed large number of air bubbles released?
31. A new wedded couple wants to give birth to a girl child. Draw the probable diagram showing chromosome transfer from parents to pregnancy. Does their wish come true or not? Why?

OR

Analyse the following information and answer the questions.

Alkaloid	Part of the plant	Uses
Quinine	Bark	Anti-malarial drug
Pyrethroids	Leaves	Insecticide
Reserpine	Roots	Medicine for snake bite
Caffeine	Seeds	Central nervous system stimulant
Nimbin	Seeds, Barks, Leaves	Antiseptic

- i) Name the alkaloid which s used to cure malaria
 - ii) Name the alkaloids used as insecticides
 - iii) Which system is stimulated by the alkaloid caffeine?
 - iv) Which parts of which plant is used as medicine for snake bite?
32. Read the following passage and answer the following.

Some of the plants secrete chemicals when injured. These chemicals seal the wound and help the plant to recover from the injury. Some of the plants release attractants for other organisms which will help the plants for pollination, seed dispersal or even in their nutrition. For example, plants having root nodules secrete chemicals to attract rhizobia into the surroundings of the roots and from a symbiotic relationship with the rhizobium.

- 1) What are primary and secondary metabolites?
- 2) What is the advantage of existing Rhizobium bacteria in the root nodules?
- 3) What benefits are seen through the substances such as resins, gums and latex?
- 4) People eat root of a plant to save from snake bite. Name the plant. What is the alkaloid present in it?

OR

If you want to know more about the flow of energy in an ecosystem, what questions do you ask?

33. Draw a neat labeled diagram of internal structure of kidney. Write the function of Renal artery and Renal vein.

(OR)

- A) Draw the neat diagram of Neuron and label the parts
- B) Write the functions of Axon