



# BIOLOGY

## BOOKS - SURA BIOLOGY (TAMIL ENGLISH)

### HALF YEARLY MODEL QUESTION PAPER

Mcqs

1. Mammals are \_\_\_\_\_ animals

A. Cold blooded

B. Warm blooded

C. Poikilothermic

D. all the above

**Answer:**



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2. \_\_\_\_ is the longest cell in our body .

A. Neuron

B. Neuroglia

C. Nerve fibres

D. Cyton

**Answer:**



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**3.** The essential parts of a flower are \_\_\_\_\_.

A. Calyx and Corolla

B. Calyx and Androecium

C. Corolla and Gynoecium

D. Androecium and Gynoecium

**Answer:**



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4. \_\_\_\_\_ help reduce blood sugar levels.

A. Sweety potato

B. Tomato

C. Beet root

D. Cane sugar

**Answer:**



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5. The eye defect 'presbyopia' can be corrected by

A. convex lens

B. concave lens

C. convex mirror

D. Bi focal lenses

**Answer:**



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6. Syngamy results in the formation of \_\_\_\_\_.

A. Zoospores

B. Conidia

C. Zygote

D. Chlamydospores

**Answer:**



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7. Which of the following is used to produce product useful to humans by biotechnology techniques ?

- A. enzyme from organism
- B. live organism
- C. vitamins
- D. both a and b

**Answer:**



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## Subjective Questions

1. An athlete runs a certain distance before taking a long jump . Why ?



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2. What are psychotropic drugs ?



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3. How are e-wastes generated?



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4. A plant hormone was first discovered in Japan when rice plant were suffering from Bakanae disease caused by *Gibberella fujikoroi*.

Based on this information answer the following questions.

(i) Identify the hormone involved in this process.

(ii) Which property of this hormone causes the disease?

(iii) Give two functions of this hormone.



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5. A pure tall plant (TT) is crossed with pure dwarf plant (tt), What would be the  $F_1$  and  $F_2$

generations? Explain.



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6. (i) Arun playing in the garden. Suddenly he saw a dragon fly sitting on a plant. He observed the wings of it. He thought it looked similar to a wing of a crow. Is he correct? Give reason for your answer.

(ii) A breeder wishes to incorporate disirable characters into the crop plants. prepare a list of characters he will incorporate.



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7. (i) What are the concepts prepared by Galileo?

(ii) List any five properties of light.



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8. (i) What is Transpiration? Give the importance of transpiration.

(ii) How do you differentiate homologous organs from analogous organs?



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**9.** Illustrate the structure and functions of brain.



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**10.** While catching a cricket ball the fielder lowers his hands backwards. Why?



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**11. What is a neurotransmitter?**



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**12. Why did Mendel select pea plant for this experiments?**



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**13. What are transgenic organisms?**



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**14.** Explain the construction of Simple Microscope.



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**15.** (i) Write characteristic features of heat energy transfer.

(ii) What is LED bulb?



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16. (i) Measurement of atomic mass of an element is very difficult? Give reason.

(ii) (i) Identify the bond between H and F in HFF molecule. (ii) what property forms the basis of identification?



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17. (i) Give an example each (i) gas in liquid, (ii) liquid, (iii) solid in solid, (iv) gas in gas

(ii) explain the types of double displacement reactions with examples.





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**18.** Write the differences between endocrine and exocrine gland.



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**19.** (i) Write a note on euploidy.

(ii) What would happen if the habitat of wild animals is disturbed?



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**20. (i) What is metastasis?**

**(ii) Solar energy is renewable energy. How?**



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**21. Write the physiological effects of gibberellins.**



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22. At  $10^{\circ}C$ , how far away is a reflecting surface if you hear an echo in  $0.274s$ ? (speed of sound in air at  $0^{\circ}C$  is  $331.3ms^{-1}$ ).



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23. (i) State the universal law of gravitation and derive its mathematical expression.

(ii) Define one calorie.



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**24.** (i) State Joule's law of heating.

(ii) An alloy of nickel and chromium is used as the heating element. Why?

(iii) How does a fuse wire protect electrical appliances?



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**25.** How are magnetic ores separated from non magnetic impurities ? Explain .



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**26.** (i) What is a chemical equilibrium? What are its characteristics?

(ii) Write the characteristics of hydrocarbons.



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**27.** (i) What are the conditions which occur due to lack of ADH and insulin? How are the conditions different from one another?

(ii) Write the events involved in the sexual

reproduction of a flowering plant. Discuss the first event and write the types.



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**28.** (i) Differentiate between outbreeding and inbreeding.

(ii) Eating junk food and consuming soft drinks results in health problems like obesity, still children prefer. What are the suggestions you would give to avoid children eating junk food/ consumption of soft drinks?



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