



# BIOLOGY

## BOOKS - SURA BIOLOGY (TAMIL ENGLISH)

### MODEL QUESTION PAPER 01

#### Mcq Part 1

1. Assertion : Sporopollenin preserves pollen in fossil deposits.

Reason : Sporopollenin is resistant to physical and biological decomposition

- A. assertion is true, reason is false
- B. assertion is false, reason is true
- C. Both assertion and reason are not true
- D. Both assertion and reason are true

**Answer: D**



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2. In pea plants, yellow seeds are dominant to green. If a heterozygous yellow seed plant is crossed with a green seeded plant, what ratio of yellow and green seeded plants would you expect in F<sub>2</sub> generation?

A. 9:1

B. 3:1

C. 1:3

D. 50:50

**Answer: D**



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3.

A. A-i, B-iii, C-ii, D-iv

B. A-ii, B-iii, C-iv, D-i

C. A-ii, B-iii, C-i, D-iv

D. A-iii, B-ii, C-1, D-iv

**Answer: C**



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4. The process of recombinant DNA technology has the following steps

I. Amplification of the gene.

II. Insertion of recombinant DNA into the host cells.

III. Cutting of DNA at specific location using restriction enzyme.

IV. Isolation of genetic material (DNA) Pick out the correct sequence of step for recombinant DNA technology.

A. II, III, IV, I

B. IV, II, III, I

C. I, II, III, IV

D. IV, III, I, II

**Answer: D**



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5. Which of the following statement is correct

A. Agar is not extracted from marine algae  
such as seaweeds.

B. Callus undergoes differentiation and produces somatic embryoids.

C. Surface sterilization of explants is done by using mercuric bromide

D. PH of the culture medium is 5.0 to 6.0

**Answer: B**



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**6. Pond is a type of**

- A. forest ecosystem
- B. grassland ecosystem
- C. marine ecosystem
- D. fresh water ecosystem

**Answer: D**



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7. The plants which are grown in silvipasture system are



A. Sesbania and Acacia

B. Solenum and Crotalaria

C. Clitoria and Begonia

D. Teak and sandal

**Answer: A**



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8. Which one of the following crop varieties correct matches with its resistance to a disease?



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## Very Short Answer Type Questions

1. What is reproduction?



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2. What is the difference between missense and nonsense mutation?



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3. Pyramid of energy is always upright. Give reasons.



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4. What is pseudo cereal? Give an example.



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5. Based on the material used, how will you classify the culture technology?



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6. Discuss which wood is better for making furniture.



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**Short Answer Type Questions**

1. What are the reasons for Mendel's successes in his breeding experiments?



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2. What do you know about the word pBR332?



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3. What is ecological hierarchy? Name the levels of ecological hierarchy.





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4. Why are some organisms called as eurythermals and some others as stenothermals ?



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5. What are millets? What are its types ? Give example for each type.



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## Long Answer Type Questions

1. Write the steps involved in molecular mechanism of DNA recombination.



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2. Explain the basic concepts involved in plant tissue culture.



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3. Shape of pyramid in a particular ecosystem is always different in shape.Explain with Example.



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4. Explain the types of hybridisation



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