

No. of Questions : 11]

[Total No. of Printed Pages : 3

HSEIRKON17
15320-A
BOTANY
(Biology)

: 1 ½ Hours]

[Maximum Marks: 35

(Long Answer Type Questions)

5 each

State and explain the Mendel's Law of Segregation. Give reasons for its universal acceptance.

Or

Explain the mechanism of gene regulation in prokaryotes with the help of lac-operon.

With the help of *one* example in each explain briefly the following terms :

- (a) Predation
- (b) Parasitism
- (c) Commensalism
- (d) Mutualism

Also categorize them as positive and negative interactions.

Or

With the help of flow diagram explain the flow of energy in an Ecosystem.

(Short Answer Type Questions)

3

3. Define double fertilizations found in angiosperms. Point out its significance.
4. What do you understand by a Test Cross ? What is its importance ?
5. What are the possible benefits and hazards of GM crops ?
6. Name various Ozone depleting substances. What is the effect of Ozone layer depletion on living objects ?

(Very Short Answer Type Questions)

7. Differentiate between Anemophilous and Entomophilous flowers.
8. Write a short note on Polyembryony
9. What do you understand by SCP ? Give two examples of SCPs.
10. What does the Ex Situ conservation of biodiversity mean ? Give *t* examples of Ex Situ conservation strategy.

(Objective Type Questions)

1 each

11. Write the correct/most appropriate answer in your answer-book :

- (i) Which of the following is a Mendelian Principle ?
- | | |
|------------------|----------------------|
| (a) Co-dominance | (b) Multiple alleles |
| (c) Segregation | (d) Linkage |
- (ii) Azadirachtin is a biofertilizer. (True/False)
- (iii) Which one of the following is green manure/biofertilizer ?
- | | |
|--------------|-----------|
| (a) Sesbania | (b) Rice |
| (c) Oat | (d) Maize |
- (iv) Animals that can tolerate a narrow range of salinity are called
- (Fill in the blank).
- (v) Tip of an ecological pyramid is occupied by :
- | | |
|----------------|-------------------|
| (a) Producers | (b) Herbivores |
| (c) Carnivores | (d) None of these |