

B-23-X

Roll No...

Total No. of Questions : **14**

[Total No. of Printed Pages : **4**

XIIARJKUT23

9123-X

BOTANY

(Biology)

Time : 1½ Hours]

[Maximum Marks : 35

SECTION-A

1 each

1. Control of gene expression takes place at the level of ;
(A) DNA replication
(B) Translation
(C) Transcription
(D) None of these
2. What is Cellular Totipotency ?
3. Name the organization that publishes the red list of species.
4. What is BOD ?

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Turn Over

SECTION-B

2 each

5. What do you understand by *in-situ* conservation ? Name some *in-situ* conservation strategies.
6. Describe the various parts of an orthotropous ovule.
7. What are Chasmogamous Flowers ? Why does a cleistogamous flower show autogamy only ?

Or

What is Anemophily ? What are the characteristics of anemophilous flowers ?

SECTION-C

3 each

8. What are the main causes of loss of Biodiversity ?
9. "DNA molecule is more stable genetic material than RNA." Explain, why ?
10. What are GMOs ? What are their pros and cons ?

11. What are **Biocontrol Agents** ? Giving **examples** show how they control pest infestation
12. Describe the development of a mature embryo sac from a megaspore mother cell in angiosperms.

Or

Describe the development of male gametes from microspore in flowering plants.

SECTION-D

5 each

13. Inheritance pattern of flower colour in garden pea plant differs from that found in 4 O'clock plant. By showing crosses upto F_2 generation, explain why this difference is observed ?

Or

What is semiconservative mode of DNA replication ? How was it experimentally proved and by whom ?

14. What are pioneer and climax communities ? Describe the process of ecological succession and differentiate between primary and secondary succession.

Or

What are Eltonian Pyramids ? With the help of one example each explain upright and inverted pyramids of number. Why is the pyramid of energy always upright ?