37

339135

C 40508 (Pages : 2) Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2023

(CBCSS—UG)

Botany

BOT 6B 11—BIOTECHNOLOGY, MOLECULAR BIOLOGY AND BIOINFORMATICS

(2019 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A

Answer **all** *questions.*
Each question carries 2 marks.
Ceiling : 20 Marks.

1. What is Genomics ? Add a note on its applications.
2. What are the essential features of a cloning vector ? Give an example.
3. What are the modern concepts of gene ?
4. Write a note on the services rendered by INFLIBNET.
5. Polymerase chain reaction.
6. Briefly mention how rDNA technology can be used in medical field.
7. What are Purines ? Give examples.
8. What details are obtained from PDB ?
9. Briefly describe the structural details of Ti Plasmid.
10. Reverse transcription.
11. What is Green computing ? What is its scope ?
12. Genebanks.

Turn over

Section B

Answer **all** *questions.*
Each question carries 5 *marks.*
Ceiling : 30 *marks.*

13. What are genetically modified crops ? How they are created ?
14. What are the different types of RNAs ? Describe its properties and structure.
15. Write a short account of genome projects and their relevance.
16. Write a brief account of different types of gene transfer methods.
17. Describe the regulation of genes in a Lac operon system.
18. Describe Sanger's method of DNA sequencing.
19. Discuss the potential of GM technology in agriculture.

Section C

Answer any **one** *question.*
The question carries 10 *marks.*

20. What are Vectors ? Describe in detail the various steps involved in the creation of recom DNA
21. Explain the central dogma of molecular biology and describe in detail how proteins are synth in a cell.

(1 × 10 = 10 m