

PGIIS-N 1592 B-2K12



M.Sc. Third Semester (CBCS) Degree Examination

BIOTECHNOLOGY — Paper – HCT 3.2

Genetic Engineering

(New)

Time : 3 Hours]

[Max. Marks : 80

Instructions : 1) Section 'A' has **all compulsory** questions.
2) Answer 'B' and 'C' Sections as per instructions.

SECTION – A

Answer the following in brief :

(10 × 2 = 20)

1. Radio active labeling.
2. Sv-40.
3. Nested PCR.
4. Gene library.
5. Germ line therapy.
6. Proof reading enzymes.
7. Passenger DNA.
8. DGGE.
9. Knock-out mice.
10. Gene probe.

SECTION – B

Answer any **four** of the following :

(4 × 6 = 24)

11. Colony hybridization.
12. Chemical synthesis of oligonucleotides.
13. Tools of Genetic Engineering.

PGIIS-N 1592 B-2K12



14. Electromobility shift assay.
15. Cosmids and its importance.
16. Southern blotting.

SECTION – C

Answer any **three** of the following :

(3 × 12 = 36)

17. Explain in detail the various methods of DNA-sequencing.
 18. Discuss in detail different types of DNA replication models.
 19. Describe various types of cloning vectors used in gene cloning.
 20. Explain in detail yeast two hybrid system.
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