D 91634 (Pages : 2) Name

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Biotechnology

GB 3C 1—GENETIC ENGINEERING

Time : Three Hours Maximum : 36 Weightage

Section A

Answer **all** *questions.*
Each question carries 1 weightage.

1. What are A, replacement vectors ?
2. What is cosmids ?
3. What is an expression library ?
4. What is meant by a purification tag ?
5. What is meant by biological containment ?
6. What is meant by antisense RNA technology ?
7. What are ribozymes ?
8. What is biolistics ?
9. What is PET vector system ?
10. What is spi selection ?

(10 x 1 = 10 weightage)

Section B

Answer any **seven** *questions.*
Each question carries 2 *weightage.*

11. What is qRT PCR ? What are its application ?
12. Explain the technology behind Flavr Savr.
13. What are DNA vaccines ?
14. Explain the use of Sindhbis virus as animal vectors.
15. What is nuclear transfer technology ?
16. What are the methods for producing transgenic mice ?
17. Compare and constrast BAC and Bacmids.

Turn over

18. Compare and contrast T_4 DNA ligase and *E.coli* DNA ligase.

19. How does nucleic acid probes are labelled ? Explain the techniques.

20. Explain DNA microarray technology.

(7 x 2 = 14 weightage)

Section C

Answer any **two** *questions.*
Each question carries 6 *weightage.*

21. Explain the different vector systems for *E.coli* for preliminary cloning.

22. Narrate the applications of genetic engineering for the well being of human kind.

23. Outline the principle, procedure, variations and applications of PCR.

(2 x 6 = 12 weightage)