C 41439 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2013

(CCSS)

Microbiology—Core Course

MB 4 B 06—MICROBIAL GENETICS AND GENETIC ENGINEERING

Time : Three Hours Maximum 30 Weightage

Section I

Answer **all** *questions.*

1. Transforming principle as explained by Griffith was later identified as ————
2. Shine-Dalgaeno sequence is the one involved in ————
3. When the altered codon formed as result of mutation is a termination codon the mutation is called ————
4. PBR 322 vector has gene for resistance to ————
5. Part of DNA which is transferred from Ti-plasmid to host plant is called as ————
6. Ames test is used to study ————
7. An example for restriction-enzyme which produce sticky end is ————
8. In Western blotting, presence of specific protein can be detected by use of ————
9. When the F factor in F+ cells become integrated it is called as ————
10. Bacteria carrying prophage are called as ————
11. Taq DNA polymerase was originally isolated from ————
12. IPTG is used as an inducer of ————

(12 x $^1/_4$ = 3 weightage)

Section II

Answer **all** *questions.*
Answer each in one or two sentences.

13. Electroporation.
14. RT-PCR.
15. Bacterial conjugation.
16. RNA polymerase.
17. Genetic code.
18. PUC vector.
19. Okazaki fragment.

Turn over

20. Blue white screening.
21. Plasmid.

9 weightage)

Section III

Write any **five** *of the following questions.*

Write short notes on :

22. GM food.
23. Site directed mutagenesis.
24. Ligases.
25. Southern Blotting.
26. Expression vectors.
27. Induced mutation.
28. Generalised transduction.

5 x 2 = 10 weightage)

Section IV

Answer any **two** *questions.*

29. Explain methods for introducing foreign DNA into the cell.
30. Discuss DNA sequencing methods.
31. Describe terminator gene technology.

4 = 8 weightage)