Name...

Reg. No

# **SECOND SEMESTER M.Sc. DEGREE EXAMINATION, AUGUST 2013**

(CUCSS)

#### Microbiology

## MB 2C 05-MICROBIAL GENETICS

### (2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

#### Part A

## Answer all questions. Each question carries weightage of 1.

- 1. Lac operon.
- 2. Base substitution mutation.
- 3. Transposons.
- 4. Nonsense mutation.
- 5. Temperate phages.
- 6. Introns.
- 7. Electroporation.
- 8. RTF.
- 9. Cosmid vector.
- 10. Nucleotide excision repair.
- 11. Catabolite repression.
- 12. F plasmid.
- 13. Oxidative DNA damage.
- 14. Minimal medium.

# (14 x 1 = 14 weightage)

## Part B

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

- 15. RFLP.
- 16. Restriction enzymes.
- 17. Transformation.
- 18. Regulation of mRNA synthesis.
- 19. Chemical mutagens.

- 20. Ames test.
- 21. Plasmids.
- 22. PCR.
- 23. Molecular mechanisms of mutation.

(7 x 2 = 14 weightage)

### Part C

## Answer any two questions. Each question carries weightage of 4.

- 24. Outline cloning techniques.
- 25. Describe the construction of genetic map in bacteria.
- 26. Describe DNA replication.

 $(2 \times 4 = 8 \text{ weightage})$