16881	Name:
	Reg No

# FOURTH SEMESTER M.Sc. MICROBIOLOGY DEGREE EXAMINATION, JULY 2011

MB4.2T - Genetic Engineering, Biosafety, Bioethics and IPR

Time: Three hours Maximum: 80 marks

### SECTION - A

Answer all questions in two or three sentences each.

Each question carries 2 marks)

- 1. Yeast artificial chromosome
- 2. DNA linker
- 3. cDNA
- 4. BAC
- 5. Autoradiography
- 6. DNA probe
- 7. DNA library
- 8. FISH
- 9. Transgenic organism
- 10. Patent
- 11. Gene technology act
- 12. CDC
- 13. Biosafety
- 14. USEPA
- 15. UPOV Convention
- 16. Intellectual property
- 17. Taq Polymerase
- 18. Recombinant DNA
- 19. Electroporation
- 20. Molecular marker.

(20x2=40 marks)

### SECTION -B

(Discuss any FIVE of the following. Each question carries 8 marks)

- 1. Techniques for cutting and joining DNA molecule.
- 2. Cloning vectors
- 3. Types of PCR and its applications
- 4. International initiatives for protection of new varieties.
- 5. DNA introduction methods.
- 6. Ethical, legal and social issues (ELSI) of Genetic Engineering.
- 7. Role of USEPA, USFDA and USDA in implementing bioethics in research.

(5x8=40 marks)

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10839	Name:
	Reg.No.

# FIRST SEMESTER M.Sc DEGREE EXAMINATION, DECEMBER 2010 Microbiology (Main) MB.1C.02 —MICROBIAL METABOLISM (CUCSS)

Time: Three Hours Maximum: 36 Weightage

#### Section A

Answer any **FOURTEEN** questions in **2 or 3** sentences Each question carries 1 weightage

- 1. Define Calorie
- 2. High energy molecule
- 3. First law of thermodynamics
- 4. Electron carrier
- 5. Endergonic reaction
- 6. Gluconeogenesis
- 7. Calcium alginate
- 8. Competitive inhibitor
- 9. Trans-amination
- 10. Cytochromes
- 11. Oxidoreductases
- 12. Oxidative phosphorylation
- 13. Peptidoglycan
- 14. Siderophore
- 15. Ricin
- 16. Amphibolic pathways
- 17. Fermentation

 $(14 \times 1 = 14 \text{ weightage})$ 

## **Section B**

Write notes on any **SEVEN** of the following Each question carries 2 weightage

- 18. Yield of ATP in glycolysis
- 19. Co-enzymes and co-factors
- 20. Nomenclature of enzymes
- 21. Significance of Hexose monophosphate (HMP) shunt
- 22. Beta oxidation of fatty acids
- 23. Bioluminiscence