

CS/B.Sc. (H), Micro-Bio./SEM-6/MTL-604/2012

2012

**MICROBIAL TECHNOLOGY — SOCIAL, LEGAL
AND ETHICAL ISSUES**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words

as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the

following :

10 × 1 = 10

i) Which is the final regulatory authority for approval of genetically modified crops ?

a) Genetic Engineering Approval Committee

b) Review Committee on Genetic Manipulation

c) Department of Biotechnology, Govt. of India

d) Council of Biotechnology on Genetic Manipulation.

ii) protection is extended to “Original works of authorship” that are fixed in a tangible form of expression.

a) Patent b) Copyright

c) Trademark d) Service mark.

iii) The first plant patent was done in 1931 for a

a) climbing rose b) climbing vine

c) climbing apple d) none of these.

iv) TRIPs agreement forms a part of the

- a) Indian Patent Act, 1970
 - b) Utility Patent Act, 1980
 - c) Uruguay round to GATT
 - d) All of these.
- v) In India ethical guidelines for biomedical research in human was supplemented by
- a) Medical Council of India
 - b) Department of Biotechnology
 - c) University of Delhi
 - d) None of these.
- vi) Convention of Biological Diversity in Rio de Janeiro by United Nations in the year of 1992 is commonly known as
- a) Global summit b) Earth summit
 - c) Farmer's right d) None of these.
- vii) First Cohen-Boyer recombinant DNA patent was done in the year
- a) 1988 b) 1980
 - c) 1986 d) 1981.
- viii) A patent lasts for how long ?
- a) 25 years
 - b) 10 years
 - c) Can be renewed every 5 years
 - d) 20 years.
- ix) A. M. Chakravarthy is a renowned person for first time patenting
- a) oncomouse b) climbing rose
 - c) live forms d) none of these.

- x) Computer programs are protected by copyrights under
a) TRIPs b) Paris convention
c) Berne convention d) None of these.
- xi) The insecticidal crystalline protein from *B. thuringiensis*
was originally classified as
a) α -endotoxin b) δ -endotoxin
c) β -endotoxin d) γ -endotoxin.
- xii) Ice-minus bacteria is a nickname given to a mutant
variant of the common micro-organism
a) *Pseudomonas putida*
b) *Bacillus megaterium*
c) *Pseudomonas denitrificans*
d) *Pseudomonas syringae*.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. What is Trademark ?
3. Give the ethical views on Biological weapon.
4. What is the Indian response to the emerging IPR scenario ?
5. Write down the broad issues of WTO's TRIPs agreement.
6. Define geographical indications with examples.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. Discuss the legal issues and social issues of genetic engineering in microbiology.
8. What are patents ? What are the basic patentability criteria of micro-organism ? What do you know about Title

35 patents ?

9. Write short notes on any *three* of the following : 3×5

a) UPOV

b) Patenting of life forms

c) Industrial designing

d) Trade secrets.

10. Write in brief about Diamond vs Chakravarthy case. Why is

this case important ? What are the basic requirements for

patentability of micro-organisms ? Briefly describe the

various requirements for award of a patent. $5 + 5 + 5$

11. What are the basic technologies used in microbial

engineering ? Write few controversies against microbial

technologies with suitable examples. $5 + 10$

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