

**CS/B.Sc.(H)/Micro-Bio/SEM-6/MTL-604/2013**

**2013**

**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 :

10x1 = 10

i) Genetically engineered herbicide-resistant crops allow farmers to use a single broad-spectrum herbicide throughout the growing season.

a) True b) False.

ii) According to Indian Patent Law an invention is

a) contrary to public order

b) a new property of a known substance

c) a new product or process involving an inventing step and capable of industrial application

d) none of these.

iii) PVP is generally known as

a) patent variety protocol

b) patent variety protection

c) plant variety protection

d) plant variation patents.Tech.

iv) Which of the following is not patentable under the 1988

Patent Act ?

- a) Manufacturing process
  - b) Chemical formulation
  - c) Mathematical processes
  - d) New products.
- v) Plant Patent Act grants protection right to inventor of
- a) asexually reproduced new plant varieties
  - b) tuber propagated plant
  - c) all sexually reproduced plants
  - d) all mutant varieties.
- vi) Among the 34 International Depository Authorities  
..... is the sole representative from India.
- a) IMTech b) IIM
  - c) MTI d) MMI.
- vii) Which of the following will be allowed to a patent to be applied ?
- a) A new invention
  - b) A new variety of plant
  - c) Some computer information
  - d) A form of doing business.
- viii) TRIP stands for
- a) trade related industrial proposition
  - b) type and regulations in industrial patent study
  - c) trade related intellectual property rights
  - d) trade relation and Indian properties.
- ix) The first patent was done in 1931 for a
- a) climbing rose
  - b) climbing vine

- c) climbing apple
  - d) none of these.
- x) The grant portion of a patent is
- a) published by the patent council
  - b) not published
  - c) actually the agreement signed
  - d) both (a) and (c).
- xi) Convention on Biological Diversity in Rio de Janeiro by United Nations at the year of 1992 is commonly known as
- a) Global summit
  - b) Earth summit
  - c) Farmer's rights
  - d) none of these.
- xii) Bt Brinjal is a transgenic brinjal created by inserting a gene
- a) *Cry2b* from the soil bacterium *B. thuringiensis*
  - b) *IAC* from the soil bacterium *B. thuringiensis*
  - c) *Ama* gene from *Agrobacterium sp.*
  - d) none of these.
- xiii) The transgenic crop recommended by GEAC for environmental release in India within 2009 was
- a) Golden Rice
  - b) Bt cotton
  - c) Bt brinjal
  - d) Round up ready soybean.

**GROUP – B**

**( Short Answer Type Questions )**

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

2. What are the rights conferred by a Trademark ? Give two examples of each distinctive and non-distinctive use of the term 'trademark'.  $3 + 2$
3. Discuss the merits and demerits of IPR.
4. Discuss the protection of biological invention with special reference to patenting of DNA sequences.
5. Write a short note on biofertilizers.
6. Write down the broad issues of WTO's TRIPs agreement.
7. Define Geographical indications with examples.

### **GROUP – C**

#### **( Long Answer Type Questions )**

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

8. Write short notes on any *three* of the following :  $3 \times 5$ 
  - a) Trademark
  - b) WTO
  - c) Ethical issues in Biological Diversity
  - d) Copyright
  - e) GMO.
9.
  - a) What do you mean by Title 35 patents ?
  - b) Briefly describe the various requirements and the process of award of a patent.  $5 + 5 + 5$
10.
  - a) Discuss what are not inventions and not patentable.
  - b) Define Geographical indication with suitable examples.
  - c) Write the ethical issues associated with the consumption of GM food.  $5 + 5 + 5$
11. Write in brief about Diamond vs Chakravarty case. Why is this case important ? What are the basic requirements for

patentability of micro-organisms ? Briefly describe the various requirements for award of patent.

12. Discuss about the technologies of genetic engineering.

Discuss the social legal ethical issues related to Genetic Engineering. 7 + 8

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