	Utech
Name:	
Roll No.:	As dignost (5' Knowledge Steel Explained
Invigilator's Signature :	

CS/B.Tech (BT)/SEM-8/BT-801/2010 2010

ETHICS AND IPR IN BIOTECHNOLOGY

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: $10 \times 1 = 10$
 - i) Genetic enhancement is
 - a) an IPR

- b) a bioethical issue
- c) distributive justice
- d) all of these.
- ii) Research involving human beings requires
 - a) informed consent
- b) signature & consent
- c) consent
- d) undertaking.
- iii) Environmental ethics includes
 - a) libartarian extension
- ecologic extension
- c) conservation ethics
- d) all of these.

b)

8014 [Turn over

CS/B.Tech~(BT)/SEM-8/BT-801/2010

iv)	Prot	ection of basic idea ex	nres	sed or not expressed in
10)	Protection of basic idea expressed or not expressed in writing can be obtained through			
	a)	patents	b)	trade secret
	c)	both (a) & (b)	d)	copyright.
v)		To apply the provisions of the TRIPS agreement, India as a developing country, had a transition period of		
	a)	5 years	b)	10 years
	c)	7 years	d)	20 years.
vi)	Protection of a Patent is the responsibility of the			
	a)	Patent holder	b)	Government
	c)	Patent lawyer	d)	Patent & Trade office.
vii)	The	Trade Secret law requir	es	
	a)	absolute secrecy effort	s	
	b)	moderate secrecy effor	ts	
	c)	minimum level of secrecy		
	d)	no secrecy efforts.		
viii)		of the major requirement the idea must be	ient	for securing a patent is
	a)	Novel	b)	Least expensive
	c)	Widely published	d)	None of these.
ix)	The	Rio Convention signed	in Ju	ine, 1992 dealt on
	a)	Biological diversity		
	b)	Plant breeder's rights		
	c)	Plant genetic resources	s	
	d)	None of these.		



- x) The Indian government became a signatory to TRIPS after it joined the WTO in
 - a) 1995

b) 2000

c) 1990

- d) 2003.
- xi) Currently, the Indian Patent Act permits
 - a) product patent
- b) process patent
- c) manufacturing patent d)
- marketing patent.
- xii) What was the first gene available for genetic engineering of crop plants for pest resistance?
 - a) The 'cry gene'
- b) The 'CD3 gene'
- c) The 'OKT3 gene'
- d) None of these.

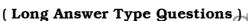
GROUP – B (Short Answer Type Questions)

Answer any three of the following.

 $3 \times 5 = 15$

- 2. Define how conscience plays a major role in ethics. Describe three important principles of ethics.
- 3. Describe Jurisprudence as the backbone of law. Why is it described at the science of formulating law? 2+3
- 4. Differentiate between the ethical principles of 'Monsanto' and 'Genezyme'. $2\frac{1}{2} + 2\frac{1}{2}$
- 5. What are geographical indications? Discuss one Indian and an international case $2\frac{1}{2} + 2\frac{1}{2}$
- 6. Describe the safety concern related to GM crop and the myths associated with it. 3+2

GROUP - C



Answer any three of the following.



- 7. Write a note on gene therapy indicating the different types of gene therapy that you can name and explain. How many are ethically permissible to pursue at the present time and why? 10 + 5
- 8. a) State the potential benefits and hazards of 'human cloning'. Give reasons whether human cloning is ethically justified.
 - b) Write briefly on Genetic testing and its applications.

10 + 5

- 9. a) What is WTO? Explain its function.
 - b) "The WTO was born out of negotiations." Explain in brief. Define the term 'Most Favoured Nation (MNF)'.

5 + 5 + 5

- 10. What is PCT application? When is it applied? Draw a time frame chart of PCT phase. Explain IRB. 2 + 5 + 3 + 5
- 11. Why are genetically modified animals produced? What are the possible problems associated with GM foods? What is Trade Secret Law? Explain with example. 5 + 5 + 2 + 3

8014 4