



Name :

Roll No. :

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

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|-------------------------|-----------------------|
| a) an IPR | b) a bioethical issue |
| c) distributive justice | d) all of these. |

ii) Research involving human beings requires

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|---------------------|------------------------|
| a) informed consent | b) signature & consent |
| c) consent | d) undertaking. |

iii) Environmental ethics includes

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|--------------------------|-----------------------|
| a) libartarian extension | b) ecologic extension |
| c) conservation ethics | d) all of these. |



- iv) 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 requires
- a) absolute secrecy efforts
 - b) moderate secrecy efforts
 - c) minimum level of secrecy
 - d) no secrecy efforts.
- viii) One of the major requirement for securing a patent is that the idea must be
- a) Novel
 - b) Least expensive
 - c) Widely published
 - d) None of these.
- ix) The Rio Convention signed in June, 1992 dealt on
- a) Biological diversity
 - b) Plant breeder's rights
 - c) Plant genetic resources
 - d) None of these.

- GROUP – B**

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 as the science of formulating law ? $2 + 3$
4. Differentiate between the ethical principles of 'Monsanto' and 'Genzyme'. $2 \frac{1}{2} + 2 \frac{1}{2}$
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

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

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
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