

Name :

Roll No. :

Invigilator's Signature :

CS/B.Sc/(H)GENETICS/SEM-6/GLE-604/2013

2013

GENETIC TECHNOLOGY : SOCIAL, LEGAL & 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) Patent is always granted for a
 - a) discovery
 - b) invention
 - c) naturally occurring phenomenon
 - d) none of these.



- ii) Which of the following is not a focus of intellectual property law ?
- a) To protect the product of a mental effort
 - b) To prevent people from copying other's ideas
 - c) To encourage the free flow of new ideas
 - d) To give the creator the right to benefit from it.
- iii) Which of the following cannot be protected by copyright ?
- a) Literary work
 - b) Musical compositions
 - c) Folklore
 - d) Graphic works.
- iv) The criteria for patenting is / are
- a) of practical benefit
 - b) capable of being industrially reproduced
 - c) must be original
 - d) all of these.
- v) Any Trademark, trade secret or copyright held by the entrepreneur is known as
- a) Disclosure document
 - b) Patent
 - c) Intellectual property
 - d) none of these.



vi) Which of the following are requirements for copyright protection ?

- a) The works must be fixed
- b) The works must be original
- c) The works must be creative
- d) all of these.

vii) A trademark

- a) is any word, name, symbol, device used by a manufacturer or seller to identify its products and distinguish them from the products of competitors.
- b) are protected against certain impermissible uses under federal law.
- c) must be distinctive and unique to differentiate them from other marks
- d) all of these.

viii) The full form of GATT is

- a) Generalized Analysis of Trade and Travel
- b) General Agreement on Tariffs and Trade
- c) General Application of Travel and Tourism laws
- d) Geographical Analysis of Tour and Trade.



- ix) In cases of literary and dramatic works, for how long will copyright exist ?
- a) 70 years after the end of the calendar year of the death of the person who created it
 - b) 50 years after the end of the calendar year of the death of the person who created it
 - c) 125 years after the end of the calendar year of the death of the person who created it
 - d) 25 years after the end of the calendar year of the death of the person who created it.
- x) Hyperacute rejection in xenotransplantation is mediated by
- a) Polymorphonuclear leukocytes
 - b) NK cells
 - c) Complement proteins
 - d) none of these.
- xi) Screening via pap smear is recommended for
- a) Lung cancer
 - b) Breast cancer
 - c) Cervical cancer
 - d) Prostate cancer.



xii) Which novel therapeutic molecule used to treat human disease ?

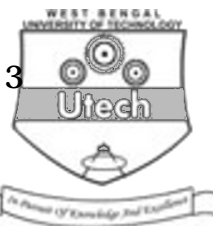
- a) miRNAs
- b) antigens RNAs
- c) shRNAs
- d) siRNAs.

xiii) Human Beta-lactoferrin has been first expressed in

- a) Transgenic cow
- b) Transgenic goat
- c) Transgenic sheep
- d) Transgenic mice.

xiv) Mutation in BRCA1 gene is risk factor for

- a) Prostate cancer
- b) Cervical cancer
- c) Breast cancer
- d) none of these.



GROUP - B

(Short Answer Type Questions)

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

2. Define Geographical indications with examples.
3. What are the rights conferred by a Trademark ? Give two examples of each distinctive and non-distinctive use of the term trademark. $3 + 2$
4. What is the WTO Agreement and what do its annexes cover ?
5. What is *Sui generis* system ?
6. Define Genetic Testing. What do you mean by Genetic Predisposition ? Give example. $2 + 3$

GROUP - C

(Long Answer Type Questions)

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

7. Discuss a case in detail involving the patent ability of live forms.
8. Define intellectual property and Intellectual Property rights. Briefly describe the various forms of protection of intellectual Property. $6 + 9$
9. What are the basic objectives of PCT ? Discuss about the functioning of the PCT system. $5 + 10$



10. Discuss in brief about the types of patent application. Discuss various requirements and the process of award of a patent. 10 + 5
11. Define gene patents. Discuss in brief about patenting in r-DNA technology. What is xenotransplantation ? Discuss why non-human primates are not preferred as donors for xenotransplantation. 5 + 5 + 2 + 3
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