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**3 (Sem-3/CBCS) BIT HG/RC**

**2022**

**BIOTECHNOLOGY**

(Honours Generic/Regular)

Paper : BIT-HG/RC-3016

**(Bioethics and Biosafety)**

Full Marks : 60

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

1. Answer the following : **(any seven)**  $1 \times 7 = 7$

(a) Intellectual Property Rights (IPR) is a process which protects the use of information and ideas that are of.

- A. ethical value
- B. commercial value
- C. social value
- D. moral value
- E. None of the above

Contd.



(b) Which of the following is/are included in Geographical Indications of Goods ?

- A. All of the below
- B. Foodstuff
- C. Manufactured
- D. Handicraft
- E. None of the above

(c) What is Trademark ?

- A. All of the below
- B. Is capable of distinguishing the goods or services of one person from those of others
- C. May include shapes of goods or a combination of colors
- D. Is represented graphically
- E. None of the above

(d) Which of the following can be patented ?

- A. Machine
- B. Process
- C. Composition of matter
- D. None of the above
- E. All of the above



(e) Which of the following is covered by the term 'Intellectual Property Rights' ?

- A. Copyrights
- B. Know-how
- C. Trade dress
- D. All of the above
- E. None of the above

(f) In which article is intellectual property rights outlined ?

- A. Article 15
- B. Article 27
- C. Article 13
- D. Article 20

(g) How long does intellectual property last? (after the death of the author)

- A. 10 yrs
- B. 30 yrs
- C. 60 yrs
- D. 70 yrs
- E. 80 yrs



(h) Where is the headquarters of WIPO ?

- A. Geneva, Switzerland
- B. London, UK
- C. Delhi, India
- D. Stockholm, Sweden
- E. Lyon, France

(i) A laboratory working with human cell lines must display the biohazard symbol on areas where the work is performed or materials are stored.

- A. True
- B. False

(j) UV light can be utilized as the sole form of decontamination in a biological safety cabinet.

- A. True
- B. False

(k) Hands should be washed before and after working in a biological safety cabinet.

- A. True
- B. False



✓(1) Below is the list of laboratory rules except

- A. Wear lab coat, glove and cover shoes every time entering into lab
- B. Eating, drinking and smoking are prohibited inside the laboratory
- C. Never do any experiment without instruction by laboratory instructor/technician
- ✓D. Student can make noise during discussion inside the laboratory
- E. Students with disease condition/state are limited from the use of the facility temporarily

2. Write the answers of the following questions :  
**(any four)** 2×4=8

✓(a) What do you mean by Intellectual Property Rights ?

✓(b) What is Biohazard ?

✓(c) Write about the requirement of patent.

✓(d) Explain about the World Trade Organization.

(e) Differentiate between trademark and trade secret.



- (f) Write down the importance of IPR.
- (g) What do you mean by primary controls of biosafety?
- (h) What are the key components of biosafety?
3. Write notes on **(any three)** of the following :  
5×3=15
- (a) Bioethics
- (b) Bioterrorism
- (c) Geographical Indicator
- (d) Good laboratory practices
- (e) Biopiracy
- (f) GMP
- (g) Horizontal gene transfer issue
- (h) Biohazardous material

4. Answer **(any three)** of the following :  
10×3=30
- (a) Explain in detail about different types of IPR.
- (b) Explain briefly about the ethical issues related to molecular technologies.

- (c) Write in detail about the patenting of life forms.
- (d) Is stem cell research ethical? Write the ethical issues related to stem cell research.
- (e) Write the procedure to file a product patent.
- (f) Explain different types of principles of bioethics.
- (g) Write briefly about the bioethical dilemma with suitable examples.
- (h) Describe briefly about the procedure of filing of patent.

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dosage