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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)** 1×7=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

- (l) 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 : 2×4=8
- (any four)**
- (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.