



18071

**BRAINWARE UNIVERSITY****Term End Examination 2025-2026****Programme – M.Sc.(MB)-2024****Course Name – IPR and Biosafety****Course Code - MMB30209****(Semester III)**

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Brainware University
Barasat, Kolkata -700125

Full Marks : 60**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Public health ethics is a branch of _____
a) Medical ethics
b) Bioethics
c) Abortion
d) None of these
- (ii) Why did India establish the Traditional Knowledge Digital Library (TKDL)?
a) To document traditional medicine and prevent bio-piracy
b) To commercialize traditional knowledge globally
c) To replace traditional knowledge with modern science
d) To store all patents related to modern medicines
- (iii) The main legal issue between Monsanto and farmers regarding its GM seeds was ____
a) Farmers were accused of illegally saving and replanting patented seeds
b) Farmers were using too much pesticide on Monsanto crops
c) Monsanto refused to sell seeds to small farmers
d) Monsanto's seeds failed to grow properly
- (iv) Biosafety level is required for handling the most dangerous pathogens, such as the Ebola virus is ____
a) BSL-1
b) BSL-2
c) BSL-3
d) BSL-4
- (v) Which of the following can NOT be trademarked?
a) A unique logo
b) A common descriptive word used in a general sense
c) A brand name
d) A slogan
- (vi) Patent infringement means ____
a) Unauthorized use, production, or sale of a patented invention
b) Filing of a new patent application for an expired patent
c) Withdrawal of a patent application
d) Licensing of a patent to another party
- (vii) Advances in gene editing have led to personalized medicine, but only wealthier individuals can afford these treatments, leading to increased healthcare disparity. This

situation is an example of:

- | | |
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| <p>a) The ethical application of biotechnology</p> <p>c) Socioeconomic inequality in biotechnology access</p> <p>(viii) Select the type of filter that is commonly used in Biological Safety Cabinets (BSCs) to capture and remove airborne particles.</p> <p>a) Carbon filter</p> <p>c) Glass fiber filter</p> <p>(ix) Trademark is ____</p> <p>a) A legal document for patenting an invention</p> <p>c) A type of copyright for books and music</p> <p>(x) Write, Intangible assets include ____</p> <p>a) Patents</p> <p>c) Copyrights</p> <p>(xi) Judge that a patent must have ____ criteria.</p> <p>a) novelty</p> <p>c) inventive step</p> <p>(xii) ____ is the minimum biosafety level required to work with Mycobacterium tuberculosis</p> <p>a) BSL I laboratory</p> <p>c) BSL III laboratory</p> <p>(xiii) In which international agreement are trademarks protected globally?</p> <p>a) The Paris Convention</p> <p>c) The Berne Convention</p> <p>(xiv) A proper way to handle a highly precious specimen with a leaking or broken container</p> <p>a) Discarding immediately</p> <p>c) Mixing with another sample</p> <p>(xv) Label the risk of genetic engineering.</p> <p>a) Improving human intelligence</p> <p>c) Reducing agricultural productivity</p> | <p>b) The digital divide in healthcare</p> <p>d) The elimination of genetic diseases for all</p> <p>b) Electrostatic filter</p> <p>d) HEPA filter</p> <p>b) A symbol, word, or phrase legally registered to represent a company or product</p> <p>d) A tax imposed on businesses</p> <p>b) Trademarks</p> <p>d) All of these</p> <p>b) industrial applicability</p> <p>d) All of these</p> <p>b) BSL II laboratory</p> <p>d) BSL IV laboratory</p> <p>b) The Geneva Convention</p> <p>d) The WTO Free Trade Agreement</p> <p>b) Transferring to a second sterile container</p> <p>d) Ignoring minor leaks</p> <p>b) Changing or harming ecosystems</p> <p>d) Eliminating climate change</p> |
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Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain which IPRs are covered under TRIPS? (3)
3. Explain the advantages of Monopolies in an economy. (3)
4. Explain the role of bioethics in guiding medical and biotechnological advancements. (3)
5. Discuss the additional requirement for filing of patent applications with respect to microbiological inventions? (3)
6. Propose your idea. Do we need to register a copyright? (3)

OR

- Compile your comments. How is Geographical Indications distinct from appellation of origin? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write the purpose of biosafety in the molecular biology laboratory. (5)
8. Evaluate the role of Institutional Biosafety Committee (IBC) in India. (5)
9. Summarize the objectives of "Regulations and Guidelines on Biosafety of Recombinant DNA Research and Biocontainment, 2017". (5)
10. What are the different Treaties and reciprocal agreements found in India? (5)
11. Analyze how do you protect your invention in several countries? (5)

12. Evaluate the role of Six competent authorities for regulation of GMOs in India. (5)

OR

Decide Procedure for approval of confined field trials and environmental release of GE plants. (5)

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