

GUJARAT TECHNOLOGICAL UNIVERSITY
M.Sc. Industrial Biotechnology-SEMESTER - 2 SUMMER – 2023 EXAMINATION

Subject Code:1320106**Date:21 Jun 2023****Subject Name: Intellectual Property Rights, Biosafety and Bioethics****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Draw neat and clean diagrams as required

Q.1	Write a note on following	(Marks- 10X2=20)
	<ol style="list-style-type: none"> 1. Define IP. Enlist various types of IP. 2. What is patent? Write criteria of patentability. 3. Write major difference between The Indian Patent Act 1970 and 2005. 4. What is section 3 and 4 as per The Indian Patent Act 2005? 5. What is genome editing? Enlist various tools used for genome editing. 6. Write advantages of filling provisional patent application over complete application. 7. Write examples of paid and free patent databases. 8. Write full form of: GEAC, RCGM, GATT and WIPO. 9. What are biosafety levels? How biosafety levels are defined? 10. Which are the advantages of PCT over conventional patent applications? 	
Q.2	Answer the following (Any 2 out of 3)	(Marks- 2X10=20)
	<ol style="list-style-type: none"> 1. Enlist various steps in patent filling process. Explain in detail about application steps along with various forms. 2. Write a note on Patent Cooperation Treaty (PCT). 3. What is bioethics? Cite principles of bioethics and discuss importance of bioethics in research. 	
Q.3	Answer the following (Any 6 out of 8)	(Marks- 6X5=30)
	<ol style="list-style-type: none"> 1. Give difference between pre-grant and post-grant opposition in patent filling process. Discuss various ground of opposition. 2. What is WIPO? Discuss functions of WIPO. 3. Discuss significance of IP in various fields. 4. Discuss key points of the draft bill of the Biotechnology Regulatory authority of India. 5. What is GM food labeling? Discuss purpose and norms of GM labeling as per FSSAI. 6. Discuss principles of safety assessment of transgenic plants. 7. Define biopiracy. Discuss effects of biopiracy. 8. Write a note on: National Bio-diversity Authority (NBA). 	
