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**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)**



B. Tech (Eighth Semester – Regular/Supplementary) Examinations, April – 2026

22BBTPE48011 – IPR, Bioethics and Bio safety

(Biotechnology)

Time: 3 hrs

Maximum: 70 Marks

**Answer ALL questions
(The figures in the right-hand margin indicate marks)**

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. How are rights and duties interrelated?	CO1	K2
b. What is meant by patentability?	CO1	K2
c. Define international patent application.	CO2	K1
d. What is a biosafety cabinet?	CO3	K1
e. What is informed consent?	CO4	K2

PART – B

(15 x 4 = 60 Marks)

Answer **ALL** the questions

	Marks	CO #	Blooms Level
2. a. Describe the various forms of Intellectual Property. Discuss the rights granted under each form and how they help in protecting intellectual creations. (OR)	15	CO1	K2
b. Analyze the impact of TRIPS agreement on developing countries like India.	8	CO1	K4
c. Discuss the role of WTO and WIPO in strengthening global IPR regimes.	7	CO1	K4
3.a. Explain different components of a patent document and describe the steps involved from patent filing to grant. (OR)	15	CO2	K3
b. Evaluate the role of PCT in simplifying international patent filing.	8	CO2	K2
c. Analyze patent infringement, litigation process and remedies with case studies (Neem)	7	CO2	K4
4.a. Discuss biosafety measures for handling genetically modified organisms. (OR)	15	CO3	K4
b. Describe laboratory biosafety practices and containment equipment.	8	CO3	K3
c. Explain principles of risk assessment and risk management in biosafety.	7	CO3	K2
5.a. Discuss ethical issues related to genetic engineering and transgenic organisms.	8	CO4	K2
b. Explain the fundamental principles of bioethics with suitable examples. (OR)	7	CO4	K4
c. Discuss the Cartagena Protocol and its significance in biosafety governance.	8	CO4	K3
d. Discuss genetic testing and screening with reference to ELSI issues.	7	CO4	K4

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