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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN  
 [AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]  
 Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

**Question Paper Code: 9001**

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – MAY / JUNE 2024

Eighth Semester

Biotechnology

U19BTE20 – BIOETHICS & IPR

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analysing	K6 - Creating

**PART – A**

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	What is bioethics?	2	K2	CO1
2.	List the risks involved in releasing the genetically engineered organisms into environment.	2	K1	CO1
3.	Expand GATT. State its function related to IPR.	2	K2	CO2
4.	How WTO and GATT are interrelated?	2	K1	CO2
5.	Clarify the genetic issues involved in patenting human genes.	2	K2	CO3
6.	List out the patent database.	2	K1	CO3
7.	Write short notes on IPR?	2	K1	CO4
8.	What is trade secret?	2	K1	CO4
9.	Define biosafety?	2	K1	CO5
10.	Write short notes on biological Weapon.	2	K1	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Brief the ethical issues involved in genetic testing and screening.	13	K2	CO1
	(OR)			
b)	Summarize the socio-Economic impact of biotechnology.	13	K3	CO1
12. a)	Write a brief note on Indian patent act 1970 and recent amendments.	13	K3	CO2
	(OR)			
b)	Narrate the role of GATT in international trade.	13	K3	CO2
13. a)	With a neat flow chart, enumerate the various stages from filling till grant of a patent in India.	13	K3	CO3
	(OR)			
b)	Write a brief notes on National and PCT filling procedure.	13	K3	CO3
14. a)	Trademark law not only protects the trademark of companies but also protects the interest of consumers comment and explain the purpose of trademark law.	13	K4	CO4
	(OR)			
b)	Discuss in detail about IPR with case study.	13	K3	CO4
15. a)	Explain in detail about various levels of biosafety.	13	K3	CO5
	(OR)			
b)	Explain the prudent practices for handling and disposal of GMOs.	13	K2	CO5

PART – C

(1 x 15 = 15Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	Analyse the various aspects of Cartagena protocol on biosafety.	15	K4	CO5
	(OR)			
b)	As a biotechnologist, suggest the special procedures to be followed in rDNA based products.	15	K5	CO5