

CBCS SCHEME

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BBT501



Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025

Bioeconomy and Entrepreneurship

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1				M	L	C
Q.1	a.	Define Bio – economics and explain its relevance in today's world.		10	L1	CO1
	b.	Compare and contrast traditional economics with Bio – economics.		10	L2	CO1
OR						
Q.2	a.	Highlight the potential of Bio – business to address environmental sustainability.		10	L2	CO1
	b.	Define Small – Scale Industries (SSI) and explain their role in economic development.		10	L1	CO1
Module – 2						
Q.3	a.	Distinguish between the adoptions of knowledge – based bioeconomy models in developed and developing nations.		10	L2	CO2
	b.	Discuss the economic challenges of implementing a bioeconomy at a national level.		10	L2	CO2
OR						
Q.4	a.	Compare and contrast the approaches of Europe and Africa toward sustainable food security within a bioeconomy framework.		10	L2	CO2
	b.	What strategies can be adopted to ensure sustainable forestry practices in a bioeconomy?		10	L1	CO2
Module – 3						
Q.5	a.	How does the use of biomass contribute to the reduction of green house gas emissions?		10	L2	CO2
	b.	Highlight the entrepreneurship opportunities in the biobased product sector.		10	L2	CO2
OR						
Q.6	a.	Explain how value chains can be optimized for sustainability in biobased industries.		10	L2	CO2
	b.	How can bioeconomy initiatives contribute to global food security?		10	L2	CO2
Module – 4						
Q.7	a.	Explain the role of plant tissue culture in improving food security.		10	L2	CO4

	b.	Provide a case study on the successful adoption of polyhouse culture by an entrepreneur.	10	L2	CO4
OR					
Q.8	a.	What are the key business opportunities in the field of agri – biotechnology?	10	L1	CO4
	b.	Analyze a case study on the successful commercialization of plant tissue culture techniques.	10	L3	CO3
Module – 5					
Q.9	a.	Brief on the major business opportunities in industrial biotechnology.	10	L1	CO4
	b.	With the help of a case study, explain the production of a secondary metabolite for industrial use.	10	L2	CO4
OR					
Q.10	a.	Discuss the market potential and challenges for single – cell protein production.	10	L2	CO4
	b.	Illustrate a case study of a successful probiotic or prebiotic producing company.	10	L2	CO4
