

CBCS SCHEME

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BBT501

Fifth Semester B.E./B.Tech. Degree Examination, June/July 2026

Bioeconomy and Entrepreneurship



Max. Marks: 100

*Notes: 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.	Discuss the SWOT analysis of Biobusiness sector from Indian context.	10	L2	CO1
	b.	Explain the concept of Entrepreneurship. Briefly explain the characteristics of entrepreneur and stages in entrepreneurial process.	10	L1	CO1
OR					
Q.2	a.	Discuss the barriers for biobusiness.	10	L2	CO1
	b.	Explain the different types of feasibility studies conducted before starting a biobusiness and discuss how each type helps in determining the overall viability of the business.	10	L1	CO1
Module – 2					
Q.3	a.	Discuss the benefits and challenges of a knowledge based bioeconomy and explain how it contributes to sustainable development.	10	L2	CO2
	b.	Evaluate the strategies and innovations that contribute to the development of a resource efficient agricultural bioeconomy.	10	L3	CO2
OR					
Q.4	a.	Discuss the role of biobased economy in promoting sustainable development.	10	L2	CO2
	b.	Evaluate the strategies that can be adopted to ensure sustainable forestry practices within bioeconomy.	10	L3	CO2
Module – 3					
Q.5	a.	Discuss how a bioeconomy can contribute to food security and healthy nutrition.	10	L3	CO2
	b.	How does the use of biomass contribute to the reduction of green house gas emission?	10	L2	CO2
OR					
Q.6	a.	Discuss the importance of biotechnology for the development of a bioeconomy.	10	L3	CO2
	b.	Highlight the ways in which the biobased product sector can generate entrepreneurial opportunities.	10	L2	CO2

Module – 4

Q.7	a.	Evaluate the essential requirements and considerations for establishing a tissue culture laboratory.	10	L3	CO3
	b.	Analyze how bioethanol production from agri-algal source supports circular bioeconomy.	10	L4	CO4

OR

Q.8	a.	Discuss the impact of polyhouse culture on sustainable agriculture and rural entrepreneurship.	10	L3	CO3
	b.	Analyze the strategies required for the successful developments and commercialization of herbal products with reference to a suitable case study.	10	L4	CO4

Module – 5

Q.9	a.	Discuss the production, benefits and challenges of single cell protein as an alternative protein source in the bioeconomy.	10	L3	CO4
	b.	Analyze the role of biopesticides in integrated pest management and sustainable crop production.	10	L4	CO4

OR

Q.10	a.	Assess the business opportunity, challenges and strategies in the production and commercialization of prebiotic and probiotic products.	10	L4	CO4
	b.	Discuss the major business opportunities in industrial biotechnology.	10	L3	CO4

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