

CBCS SCHEME - Make-Up Exam

[illegible]**BBOC407**

Fourth Semester B.E/B.Tech. Degree Examination, June/July 2025
Biology for Engineers(CSE)

Time: 3 hrs.

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
1	a.	With a neat labelled diagram explain the structure of functions and an animal cell.	10	L1	CO2
	b.	List the differences between Prokaryotic and Eukaryotic cells.	10	L1	CO2
OR					
2	a.	What are stem cells? Explain the applications of stem cells in treating real time health issues.	10	L1	CO2
	b.	Discuss the properties and functions of Enzymes.	10	L1	CO2
Module – 2					
3	a.	Explain the properties of cellulose? What are the steps to the design cellulosed based water filter.	10	L2	CO1
	b.	Explain the working of Glucose oxidase (GO_x) in biosensors.	10	L2	CO1
OR					
4	a.	What are the Bioplastics? Compare the properties of PHA and PLA.	10	L1	CO1
	b.	With a neat diagram, explain the steps in preparation of COVID vaccine.	10	L1	CO1
Module – 3					
5	a.	What are the applications of EEG.	10	L1	CO1
	b.	What are the Engineering solutions for Parkinson's disease?	10	L1	CO1
OR					
6	a.	Explain the gas exchange mechanism in lungs.	10	L1	CO1
	b.	Explain the architecture of rod and cone cells.	10	L1	CO1
Module – 4					
7	a.	What is echolocation? Explain SONAR.	10	L1	CO2
	b.	Write a note on importance of GPS Technology in aircrafts.	10	L1	CO2
OR					
8	a.	List the applications of Bionic Leaf Technology.	10	L1	CO2
	b.	Discuss the design structure of bullet train inspired from kingfisher's beak.	10	L1	CO2
Module – 5					
9	a.	Write short notes on : i) Electronic nose ii) Self healing Bio concrete	10	L1	CO2
	b.	Explain the different types Bioremediation techniques.	10	L1	CO2
OR					
10	a.	Explain the use of artificial intelligence in diagnosis of diseases.	10	L2	CO1
	b.	Discuss the bio – engineering solutions for muscular dystrophy.	10	L2	CO1

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