



Jain College of Engineering & Research

Udyambag, Belagavi.

(Approved by AICTE, New Delhi, Affiliated to VTU Belagavi & Recognized by Govt. of Karnataka)

NBA Accredited Programs- ECE & ME

CONTINUOUS INTERNAL EVALUATION-II

Semester: 4th [CS,AI ML]

Date: 28/05/2025

Course: Biology for Engineers

Code: BBOC407

Max. Marks: 50

Course Coordinator: Prof. Sandhya Kambar

Duration: 1 Hour 30 Min

Note: Answer any one full question choosing from each part.

Q. No.	Questions	Marks	CO	R.B.T. Level
PART - A				
1 a)	What is Electro Encephalogram (ECG) ? Discuss the types of Brain activity detected with EEG. Write any three applications.	10	2	L2
1 b)	Explain architecture of Rod and Cone cell with Suitable diagram.	10	1	L2
1 c)	Bioengineering solutions for Parkinson's disease	5	1	L2
OR				
2 a)	What are Pacemakers? Explain basic design and construction of Pacemakers.	10	1	L2
2 b)	Explain Lungs as purification system.	10	2	L2
2 c)	Write a short note on Chronic Kidney Disease (CKD).	5	2	L2
PART - B				
3 a)	What is Ultrasonography ? Explain the uses and working principle.	10	3	L2
3 b)	Write a note on Commonly used Bioprinting techniques and materials.	10	4	L2
3 c)	Explain the use of Electrical tongue in food science.	5	3	L2
OR				
4 a)	The structure and design of kingfisher beak lead to the design of bullet trains. Explain.	10	3	L2
4 b)	Explain Bioimaging and Artificial Intelligence for Disease Diagnosis.	10	4	L1
4 c)	Write a short note on Haemoglobin – based Oxygen Carriers (HBOC's) and Perfluorocarbons (PFC).	5	2	L2