


Name:		 MANIPAL UNIVERSITY JAIPUR	
Enrolment No:			
Odd Semester MTE Examination, December 2024 Faculty of Engineering, School of Civil, Biotechnology and Chemical Engineering Department of Biotechnology and Chemical Engineering B. Tech- 1st Year			
Course Code: BIT1001		Course: Biology for Engineers	Semester: I
Time: 1.5 hrs.		Max. Marks: 30	
Instructions: All questions are compulsory. Missing data, if any, may be assumed suitably. Calculator is allowed / not allowed.			
SECTION A			
S.No.		Marks	CO
Q A1	Define reducing and non-reducing sugars with an example	[3QX2 =6 Marks]	CO1
Q A2	What form of cellulose is commonly used in household water filters, and why is it suitable for this purpose?		CO1
Q A3	what roles do rod and cone photoreceptor cells play in the image formed in the eye?		CO2
SECTION B			
Q B1	Explain the process involved in DNA fingerprinting and its applications in forensic science.	[4QX4 =16 Marks]	CO1
Q B2	Describe the working principle of lipids as cleaning agents and explain their function in cleaning products.		CO1
Q B3	What are the key properties of enzymes that make them suitable for engineering applications?		CO1
Q B4	What is Electroencephalography, and how is it used to measure brain activity? Discuss its applications in detecting brain disorders.		CO2
SECTION-C			
Q C1	Write a brief note on the classification of proteins based on their functions. Give three examples for each category and explain their roles.	[1QX8 =8 Marks]	CO1