Roll No._____

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-VIII Semester (Open Elective)

COURSE CODE (CREDITS): 21B1WPH831(03) MAX. MARKS: 15

COURSE NAME: Biosensors

COURSE INSTRUCTOR: Ragini Raj Singh MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculators is allowed

Q.No	Question	CO	Marks
Q1	Discuss the following basic characteristics of biosensors; also discuss their priority in biosensor performance with examples. 1. linearity 2. Sensitivity 3. Selectivity	1	**3**
Q2	Draw and explain main components and their functioning in biosensors. Discuss bio-receptors taking examples of enzymes and antibodies.	1	**3**
Q3	Discuss the affect of electrode variable and electrolyte variables in electro analytical performance of biosensors.	1	**3**
Q4	Discuss wearable following Sweat biosensors with details 1. Sweat collection and sensor interface 2. Electrochemical sensing mechanism 3. Signal processing and wireless transmission 4. Data visualization and application	2	**3**
Q5	Explain for measurement systems 1. Variable manipulation and conversion element 2. Sensitivity with graphs and equations 3. Hysteresis and Threshold 4. Difference between static and dynamic characteristics 5. Speed of response and Lag for dynamic 6. Classifications of errors (List)	2	**3**

JUIT TEST 1 EXAMINATION FEB-2026

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