

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2024

B.Tech-VIII Semester (Open Elective)

COURSE CODE(CREDITS):03

MAX. MARKS: 15

COURSE NAME: Biosensors (21B1WPH831)

COURSE INSTRUCTORS: Dr. Ragini Raj Singh

MAX. TIME: 1 Hour

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

*(b) Marks are indicated against each question in square brackets.*

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

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**Q.1.** What is a biosensor? Discuss the limitations and advantages of biosensors. [Marks:2, CO: 1]

**Q.2.** Discuss all the basic characteristics of biosensors. [Marks:3, CO:1]

**Q.3.** While designing biosensors what must be the main considerations. [Marks: 2, CO:1]

**Q.4.** Discuss the elements of generalized measurement system in detail. Also give one example to explain these elements. [Marks: 3, CO:2]

**Q.5.** Discuss the static characteristics of the measurement system. Describe its accuracy, drift and threshold in detail. [Marks: 3, CO: 2]

**Q.6.** List the variables that affect the electro analytical performance of biosensors. [Marks: 2, CO: 3]