

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2018

B. Tech VII Semester

COURSE CODE: L-18B1WBT731

MAX. MARKS: 15

COURSE NAME: Biosensors-Principles & Applications

COURSE CREDITS: 3

MAX. TIME: 1Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. XXXXXXXXXXXXXXXXXXXX

Answer the following Questions.

1. Write down the essential features of biosensor? (2)
2. Describe the main components of biosensors and explain their function.(2)
3. Write down Nerst equation for single electrode and briefly explain with suitable example. (3)
4. Provide a brief explanation of the following (a) piezoelectric effect (b) Peltier Effect (c) Butler volmer equation. (3)
5. Draw a neat sketch and explain about the design of enzyme-based biosensor. (3)
6. How will you develop sensors for DNA? Explain the principle (2)