## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATIONS-2022

## B.Tech-VII Semester (BT)

COURSE CODE (CREDITS): 10B11PH212 (4)

MAX. MARKS: 15

COURSE NAME: Biophysical Techniques

COURSE INSTRUCTORS: Dr. Ragini Raj Singh

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. What were the reasons for the origin of quantum mechanics? [CO:1, 2 Marks: 2]

Q.2. What is Einstein's explanation of the photoelectric effect? Discuss with the help of a graph. [CO:1,2, Marks: 3]

Q.3. Prove the wave nature of the electron. [CO: 1,2 Marks: 3]

Q.4. What is spectroscopy? Define the goals of spectroscopy. [CO: 1, 3, Marks: 2]

Q.5. What are the factors there those influence the intensity of spectral lines? [CO: 1, 2, Marks: 3]

Q.6. What causes spectral lines to have a finite width? [CO: 1-5, Marks: 2]