## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- 2023

## B.Tech-I Semester (CSE/IT/ECE/CE)

COURSE CODE(CREDITS): 18B1WEC741 (3)

MAX. MARKS: 15

COURSE NAME: Biomedical Signal Processing

COURSE INSTRUCTORS: Dr. Nishant Jain

MAX. TIME: 1 Hour

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.
- 1. What do you understand with Physiological systems of the human body? List and explain any 4 Physiological systems of the human body.

[3, CO1]

2. What is the main purpose of Biomedical Signals? State and explain any three biomedical signals obtained from the human body.

[3, CO1]

- 3. With the help of Block diagram explain the following components of Man-Instrumentation systems:
  - a. Subject.
  - b. Stimulus.
  - c. Transducer.
  - d. Signal Conditioning equipment.
  - e. Display equipment.
  - f. Recording and Transmission Equipment.
  - g. Control Device.

[5, CO1]

4. Draw and explain the generation of bioelectric potential waveforms. Also explain how these waveforms are propagated throughout the body?

[4, CO1]