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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2022

B.Tech. VIII Semester (ECE)

COURSE CODE: 19B1WEC836

COURSE NAME: Applied Medical Signal Processing

MAX. MARKS: 25

COURSE CREDITS: 03

MAX. TIME: 1 hour 30 min

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

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- Q1. Write a short note on electrical features/properties of the ECG, EEG and EMG signals. [3]
- Q2. Derive the expression for the matched filter impulse response so as to maximize the output peak signal to noise ratio? [5]
- Q3. Write two methods for the detection of QRS complex in an ECG signal [4]
- Q4. Write a short note on correlation and cross spectral techniques in the analysis of EEG signals. [4]
- Q5. What do you mean by adaptive noise canceller? Derive the expression of LMS optimal weights. [5]
- Q6. List the steps involved in the derivation of Weiner filter coefficients along with the block diagram. [4]