JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

B.Tech V Semester

COURSE CODE: 17B11EC511

MAX. MARKS: 35

COURSE NAME: LINEAR INTEGRATED CIRCUITS

COURSE CREDITS: 04

MAX. TIME: 2 Hours

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

1. Write a brief note on:
   (a) Effect of variation in power supply voltage on offset voltage.
   (b) Common Mode Configuration and Common Mode Rejection Ratio.

2. Discuss the design and DC analysis of dual input balanced output differential amplifier.

3. Explain the operation of 555 timer as monostable multivibrator.

4. Draw and explain circuit diagram of an integrator circuit using operational amplifier. Derive an expression for the output voltage.

5. Explain the voltage controlled oscillator with a neat block diagram. Give its typical connection diagram and its output waveform.

6. Describe the working of binary weighted resistor D/A converter with its circuit diagram.

7. What is the name of the circuit that is used to detect the peak value of non-sinusoidal waveform? Explain its working with circuit diagram.