



C09-AEI-605

3718

BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2021
DAEIE - SIXTH SEMESTER EXAMINATION
PRINCIPLES OF COMMUNICATION AND
LINEAR IC APPLICATIONS

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. State the need for modulation in communication system.
2. Draw the block diagram of FM transmitter.
3. List FM demodulator circuits.
4. Draw the waveforms of PAM.
5. State the requirement of an operational amplifier.
6. Define CMRR.
7. Draw the circuit of comparator.
8. Draw the block diagram of 555 timer IC.
9. Draw the waveform of saw tooth wave generator using OP-Amps.
10. Draw the block diagram of Schmitt trigger.

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Draw and explain block diagram of AM transmitter.
12. Explain the principle of AM detector circuit.
13. Explain the principle of pulse modulation.
14. Explain the operation of differential amplifier.
15. Explain the operation of summing amplifier.
16. Explain the operation of non-inverting amplifier.
17. Explain the operation of each block of 555 timers.
18. Explain the operation of square wave generator.

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