



C16-AEI-401

6414

BOARD DIPLOMA EXAMINATION, (C-16)
OCTOBER—2020
DAEI—FOURTH SEMESTER EXAMINATION

LINEAR IC APPLICATIONS AND
COMMUNICATION SYSTEMS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

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

1. Sketch the package style of analogue IC's.
2. Define output impedance and input impedance of an Op-amp.
3. List any three applications of PLL.
4. Draw the circuit of voltage follower.
5. State any three advantages of active filters.
6. Mention the function of each pin in 555 timers IC.
7. Distinguish between FM and PM in any three aspects.
8. Define selectivity.
9. State any three applications of pulse amplitude modulation.
10. List any three features of CDMA technology.

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Explain the operation of a differential amplifier with a circuit diagram.
12. Draw and explain the operation of a practical integrator circuit.
13. Explain the operation of a BPF circuit using operational amplifier.
14. Explain the operational block diagram of a 555 timer IC.
15. Explain the AM with waveforms and give its expression.
16. Explain the Foster-Seeley demodulator circuit with a sketch.
17. Sketch the waveforms of PAM and PPM.
18. Explain the principle of fibre optic communication with a block diagram.
