



C16-AEI-401

6414

BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—2018
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. List different package style of analog ICs.
2. State the need for high CMRR.
3. Draw the circuit diagram of voltage follower.
4. List any three applications of PLL.
5. List any three disadvantages of passive filters.
6. Draw the pin diagram of 555 IC timer.
7. State the need for modulation in communication system.
8. Define the terms 'selectivity' and 'sensitivity'.

- * 9. Draw the waveforms of PAM and PWM.
10. List any three features of GSM mobile 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 criterion for valuation is the content but not the length of the answer.

11. Explain the operation of typical integrated circuit operational amplifier with block diagram.
12. Explain the operation of instrumentation amplifier with circuit diagram.
13. Explain the operation of high-pass filter (HPF) using operational amplifier with circuit diagram.
14. Explain the operation of astable multivibrator using IC 555 timer with circuit diagram.
15. Explain AM transmitter with block diagram.
16. Explain FM receiver with block diagram.
17. Explain time division multiplexing and frequency division multiplexing methods with diagrams.
18. Explain the principle of satellite communication system with diagram.
