

6414
BOARD DIPLOMA EXAMINATION
JUNE - 2019

* **DIPLOMA IN APPLIED ELECTRONICS AND INSTRUMENTATION**
LINEAR IC APPLICATIONS & COMMUNICATION SYSTEMS
FOURTH SEMESTER EXAMINATION

Time: 3 Hours

Total Marks: 80

PART - A (3m x 10 = 30m)

Note 1: Answer all questions and each question carries 3 marks

2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. Define C.M.R.R
2. State the requirement of an operational amplifier
3. Draw the circuit of Summing amplifier
4. Draw the circuit of a non-inverting amplifier
5. List any three advantages of Active filters
6. List any three applications of 555 Timer IC
7. State the need for modulation in communication system.
8. Define the term Image frequency Rejection
9. Sketch the waveform of PAM
10. Mention the uplink and downlink frequencies used in satellite communication system

PART - B (10m x 5 = 50m)

Note 1: Answer any five questions and each carries 10 marks

2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. Explain the operation of differential amplifier with the circuit diagram
- * 12. Explain the operation of Instrumentation amplifier with circuit diagram.
13. Explain the operation of High Pass Filter using operational amplifier with circuit diagram

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14. Draw the circuit diagram of mono stable Multivibrator using 555 IC timer and explain its operation. (4m+6M)
15. Draw the block diagram of FM transmitter and explain each block.
16. Explain the principle of TRF receiver with its block diagram
17. Explain PCM with Block Diagram
18. Explain the principle of Satellite communication system

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