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BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 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 input bias current
2. State the requirement of an operational amplifier
3. Draw the circuit of a non-inverting amplifier
4. Draw the circuit of Ideal Integrator
5. List any three limitations of passive filters
6. Draw the pin diagram of 555 IC
7. Draw the FM waveform
8. Define the term Image frequency Rejection
9. State the principle of pulse modulation
10. List any three features of CDMA Technology

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. (a) Define any four parameters of operational amplifier. (8M)
 (b) Give the typical values of the above parameters for an ideal operational amplifier. (2M)
12. Explain the operation of Practical differentiator with circuit diagram
13. Explain the operation of low 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 working (4+6M)
- 15.(a) Explain Amplitude Modulation with waveform and give its expression. (6M)
(b) Distinguish between AM and FM (4M)
16. Draw the circuit of Foster's – Seely demodulator and explain it
17. Explain Frequency Division multiplexing method with diagram
18. Explain Time Division Multiple Access (TDMA)

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