

Code No.: EC611OE

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**CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS**

**III-B.TECH-II-Semester End Examinations (Regular) - May- 2023
PRINCIPLES OF ELECTRONIC COMMUNICATIONS
(Common for CSE, IT, CSD)**

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(20 Marks)

1. a) Define Gain and decibels. [2M]
- b) Explain the general model of communication system. [2M]
- c) What is the formula for the sine wave modulating signal? [2M]
- d) Define the Over modulation and Distortion. [2M]
- e) Define the Angle of inclination. [2M]
- f) Define the Equatorial orbit and Polar orbit. [2M]
- g) Define the critical angle. [2M]
- h) List out the Light Sources. [2M]
- i) List out the Wireless LAN Standards. [2M]
- j) Define the Personal-Area Network. [2M]

PART-B

(50 Marks)

2. Explain the need for modulation and multiplexing. [10M]
OR
3. Explain the Electromagnetic Spectrum. [10M]
4. Explain in detail frequency modulation. [10M]
OR
5. Explain in detail digital modulation of FSK. [10M]
6. Explain the block diagram of satellite communication system. [10M]
OR
7. Explain the global positioning system. [10M]
8. Explain the types of Fiber-Optic Cables. [10M]
OR
9. Explain the Attenuation and also explain the connectors and splicing. [10M]
10. Explain the PANs and Bluetooth. [10M]
OR
11. Explain the ZigBee and mesh wireless networks. [10M]
