



C14-EC-304

4240

BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2015
DECE—THIRD SEMESTER EXAMINATION

ANALOGUE COMMUNICATION

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 any three applications of UHF band of frequency spectrum.
2. Define frequency modulation.
3. State the advantages of FM over AM.
4. A 100W carrier is modulated to a depth of 75%. Calculate the power in AM modulated wave.
5. State the limitations of TRF receiver.
6. Distinguish between low-level and high-level modulation.
7. Define isotropic antenna and draw its radiation pattern.
8. Compare resonant and non-resonant antennas.

/4240

1

[Contd...

WWW.MANARESULTS.CO.IN

9. Define polarization of EM wave and list the different types of polarization.
10. What is virtual height in sky wave propagation?

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. (a) Define AM and draw the waveform of an AM wave. 5
(b) Explain relationship between channel bandwidth, baseband bandwidth and transmission time. 5
12. (a) Explain pre-emphasis and de-emphasis. 6
(b) State the need for pre-emphasis and de-emphasis in FM. 4
13. (a) Define overmodulation and explain the effects of overmodulation. 6
(b) List the applications of FM.
14. Explain the Foster-Seeley discriminator.
- * 15. Explain the working of superheterodyne receiver with block diagram.
16. (a) Explain the working of log periodic antenna. 5
(b) Explain different feed arrangements. 5
17. Explain the principle of parabolic reflector.
18. Explain space wave propagation.
