

Code : 15EC43T

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IV Semester Diploma Examination, April/May-2019

DIGITAL COMMUNICATION

Time : 3 Hours]

[Max. Marks : 100

- Instructions :** (i) Answer any **six** questions from Part – A.
(ii) Answer any **seven** full questions from Part – B.

PART – A

1. State the sampling theorem for low pass signals. 5
2. Describe RZ and NRZ unipolar signaling format with waveforms. 5
3. Write a note on distortion in Delta Modulation. 5
4. Explain briefly about Eye Pattern with neat diagram. 5
5. Describe briefly Coherent Detection of Binary ASK with block diagram & waveform. 5
6. What is multiple access technique ? Name the types. 5
7. Mention the advantages and disadvantages of TDM. 5
8. Explain error control codes. 5
9. Explain LRC and VRC with examples. 5

PART – B

10. Describe the generation of PAM, PPM and PWM signals. 10
11. (a) Compare Analog and Digital communication systems. 5
(b) Explain Shanon Hartley theorem. 5
12. Explain briefly the DPCM system with neat block diagram. 10
13. Explain the concept of minimum shift keying and GMSK. 10
14. Mention the merits and demerits and applications of QPSK. 10
15. (a) Compare FDM and TDM with definitions. 5
(b) Write briefly about the working principle of T1 carrier system. 5
16. Define error, mention the types and explain error control strategies. 10
17. (a) Describe briefly the types of optical fiber configuration. 6
(b) Write a brief note on splices. 4
18. (a) Classify the transmission media. 5
(b) Write short note on PIN Diode. 5
19. (a) Describe briefly the construction of semi-conductor LASER. 5
(b) List the advantages of an optical fiber. 5
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