

1174**Code : 15EE-43T**

Register Number

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IV Semester Diploma Examination, April/May-2017**COMMUNICATION AND COMPUTER NETWORKS****Time : 3 Hours]****[Max. Marks : 100**

- Note :** (i) Answer any **six** questions from Part-A. Each question carries **5** marks.
(ii) Answer any **seven** questions from Part-B. Each question carries **10** marks.

PART – A

1. Describe Basic communication system with the help of diagram. **5**
2. Illustrate the diode demodulator with a circuit diagram and waveform. **5**
3. Explain the working of photodiode optical receiver with a diagram. **5**
4. List the different types of cavity resonator and mention only two applications. **5**
5. Explain the working of a satellite transponder with a block diagram. **5**
6. Draw the block diagram of GPS (Global Positioning System) receiver and mention its functions. **5**
7. Define : **5**
 - (i) Digital Bandwidth
 - (ii) Band rate
 - (iii) Bit rate
 - (iv) Reusefactor
8. Define network topology. Explain ring topology. **5**
9. Draw the diagram of GSM architecture (Global System for mobile communication) **5**

PART – B

10. Explain the superheterodyne receiver with a neat diagram. 10
11. (a) Explain the concept of Time Division Multiplexing (TDM). 5
(b) Explain the concept of Ground wave propagation. 5
12. (a) Describe half duplex and full duplex communication. 5
(b) Define characteristics impedance of co-axial cable. 5
13. (a) Illustrate fiber optic communication system. 6
(b) Analyze single mode propagation of light ray in fiber optic cable. 4
14. Explain the working of two cavity klystron with a neat diagram. 10
15. Explain the working of a satellite subsystem with a neat block diagram. 10
16. (a) Explain the concept of GIS (Geographic Information System) 5
(b) Compare synchronous and asynchronous data transmission. 5
17. (a) Explain the operation of MODEM with a neat block diagram. 6
(b) Draw the waveforms for Frequency Shift Keying (FSK) modem. 4
18. Explain layer diagram of the OSI model. 10
19. Explain with a sketch function of Repeater and Router. 10