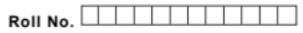


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Total No. of Pages : 02

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B.Tech. (EE) (2012 Onwards E-II) (Sem.-7) NETWORK AND DATA COMMUNICATION Subject Code : BTEE-804E M.Code : 71940

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Answer briefly :

- 1. A noiseless 4-kHz channel is sampled every 1 msec. What is the maximum data rate?
- 2. How do guided media differ from unguided media?
- 3. List two advantages and two disadvantages of having international standards.
- 4. Differentiate between FDM and WDM. Which multiplexing technique use digital signals?
- 5. What is the function of a modem? Why is it called a modem?
- 6. Difference between network ID and IP address.
- 7. What is data encapsulation?
- 8. Differentiate between Voice Network and Data Network.
- 9. Write the concept of layer protocols and layer interfaces.
- 10. Give the difference between packet switching and message switching.



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SECTION-B

- 11. Briefly explain the coaxial cable, optical fiber, twisted pair and its applications.
- 12. Compare between datagram and virtual circuit subnet.
- 13. What is cyclic code and explain Cyclic Redundancy Check (CRC) code?
- 14. Write short notes on circuit switching, packet switching and message switching.
- 15. What are the different services that TCP provides to Applications program?

SECTION-C

- What are the functions performed by each and every layer of OSI Model? Explain briefly.
- 17. Discuss briefly the following polar encoding schemes :
 - a) NRZ
 - b) RZ
 - c) Manchester
 - d) Differential Manchester
- 18. Write short notes on any two :
 - a) X.21 communication standard
 - b) Code division multiple access
 - c) Wavelength-division multiplexing

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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