

5E5103

Roll No.

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[Total No. of Pages : 2]

B.Tech. V Semester (Main/Back) Examination, Nov./Dec. - 2017
Computer Science
5CS3A Telecommunication Fundamentals
CS, IT

Time : 3 Hours**Maximum Marks : 80****Min. Passing Marks : 26****rtuonline.com****Instructions to Candidates :**

*Attempt any **five** questions, selecting **one** question from each unit. All Questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly). Units of quantities used/calculated must be stated clearly.*

Unit - I

- ✓ 1. a) Draw and explain TCP/IP reference model in computer network communication. (10)
b) Differentiate between Analog and Digital transmission. (6)

OR

1. a) What are lossless and lossy channels? Also explain transmission impairments in detail. (8)
b) Explain sliding window protocols. (8)

Unit - II

- ✓ 2. a) Discuss channel allocation problem in MAC sublayer. (8)
b) What is two dimensional parity check? (8)

OR

2. a) Compare and discuss the throughput of pure and slotted ALOHA. (8)
b) What is HDLC in data link control? (8)

Unit - III

- ✓ 3. a) Explain 802.11 architecture. (8)
b) What is virtual LAN? (8)

OR

3. a) Explain spanning Tree protocol in detail. (8)
b) Explain Bluetooth Architecture & protocol stack. (8)

Unit - IV

4. a) What is multiplexing? Explain FDM & TDM in detail. (10)
b) Discuss TDMA Burst structure. (6)

OR

4. a) What is switching? Explain space-time-space division switching in detail. (10)
b) What is slip rate in digital terrestrial network. (6)

Unit - V

5. a) What is frequency hopping (FHSS)? (8)
b) Differentiate between forward and reverse CDMA channel. (8)

OR

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5. Write short notes on :

(8 × 2 = 16)

a) IMT - 2000

b) Orthogonal code & Gold sequences