

Total No. of Questions - [4]

Total No. of Printed Pages: 2

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U359-12(T1)/U359-14(T1)

OCTOBER 2019/ INSEM (T1)

T. Y. B. TECH. (COMPUTER ENGINEERING/INFORMATION TECHNOLOGY)
(SEMESTER -I)

COURSE NAME: COMPUTER NETWORKS

COURSE CODE: CSUA31171/ITUA31171

(PATTERN 2017)

Time: [1 Hour]

[Max. Marks: 30]

Instructions to candidates:

- 1) Answer Q.1 OR Q.2 and Q.3 OR Q.4.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed
- 4) Use suitable data where ever required

- Q.1) a) Discuss the term Internet. Differentiate between LAN, MAN and WAN. [6]
- b) Explain the concept of addressing with following addressing schemes [6]
- i. Physical address
 - ii. Logical address
 - iii. Port address
- c) What is message timing? Mention the various message delivery options. [4]

OR

- Q.2) a) What do you mean by a network? Enlist different network connecting devices and mention their functionality. [6]
- b) Explain the process of rule establishment during communication. How rules or protocols ensure the message to be successfully delivered and understood at destination. [6]
- c) Discuss the importance of following [4]
- i. Message formatting
 - ii. Message encapsulation
 - iii. Message sizing
 - iv. Protocol Data Unit

- Q.3) a) Mention any three error detection techniques at data link layer with suitable example. [6]
- b) Compare and contrast between OSI and TCP/IP model. [4]
- c) Explain how physical layer and data link layer protocols and services support communication across data networks. [4]

OR

- Q.4) a) Explain the OSI model for communication. What are the benefits of using layered model? [6]
- b) Differentiate between fast Ethernet and gigabit Ethernet. [4]
- c) Discuss various media access control techniques. [4]