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Total No. of Pages: 02

Total No. of Questions: 07

B.Sc. (IT) (2015 & Onwards) (Sem. – 4)

COMPUTER NETWORKS

M Code: 74086

Subject Code: BSIT-404

Paper ID: [74086]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

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

SECTION A

1. Write short note on the following:
 - a) What is the difference between digital and analog transmission?
 - b) Discuss concept of De-multiplexing.
 - c) How do MAN and WAN differ?
 - d) Write the working of TDM.
 - e) What is Frequency spectrum?
 - f) Define PPP protocol.
 - g) What is the purpose of CSMA?
 - h) Write the reason of congestion.
 - i) Give the example of infrared transmission.
 - j) Define concept of IEEE Token Bus.

SECTION B

2. What is network topology? Discuss different types of network topologies in computer network?
3. a) Discuss in brief Synchronous and Asynchronous modulation in Digital communication?
b) What is the use of communication channels? Write functioning of optical fibre transmission?
4. Explain the phenomena of Infrared, satellite and Bluetooth transmission? What are their applications?
5. a) Give the comparison between OSI and TCP/IP reference model?
b) How message switching is different compared to packet switching?
6. a) What are the design issues of the data link layer?
b) What is error control? Explain error detection and correction code?
7. Why there is need of Routing algorithms? Explain the principal of shortest path algorithm by taking an example?