Total No. of Questions : 8]

SEAT No. : [ ]

P-9668

[Total No. of Pages : 2

[6182]-932

M.E. (Electronics & Telecommunications - IoT and Sensor System)

DATA COMMUNICATION & NETWORKING

(2017 Pattern) (Semester - I) (504602)

Time : 3 Hours] ***[Max. Marks : 50***

Instructions to the candidates :

1) ***Answer any 5 questions out of 8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) Explain the data communication techniques and throw the lights on its types. **[5]**

b) Explain the layered architecture related to data communication and networking. **[5]**

Q2) a) Explain about the motivation for cross layer protocol design with neat diagram. **[5]**

b) Explain network traffic behaviour under the context of network layers and topology design. **[5]**

Q3) a) Explain the fundamentals of time synchronization and how it is fruitful to network management. **[5]**

b) Explain the types of sensors which are used in sensor network of data communication and networking. **[5]**

Q4) a) What is a self-organizing network? And how does it work? **[5]**

b) What do you understand by multimedia? What type of data is communicated in multimedia communication? **[5]**

P.T.O.

Q5) a) Why Software defined Networking (SDN) is important in data communication. **[5]**

b) Explain the term reliability and why it is important for data communications and networking. **[5]**

Q6) a) What does scheduling mean? Write the names of two networks used in data communication and networking. **[5]**

b) Explain wireless sensor networks. Why is wireless networking preferred over wired networks? **[5]**

Q7) a) What are the transport and application layers that are widely used in data communication and networking? **[5]**

b) Explain the term quality of service (QoS) used extensively in data communications and networking. **[5]**

Q8) a) What is encryption? Is it different from decryption or not? Explain any encryption technique. **[5]**

b) Explain the term queuing as it relates to data communications and networking. **[5]**

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