

Oct.-16/B.E./Insem.- 175

B.E. (Computer Engineering)

COMPUTER NETWORK DESIGN AND MODELING

(2012 Pattern) (Semester - I) (Elective - I(b)) (Theory)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.
- 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 Service Characteristics and Service Levels. [5]
 b) What are the different types and groups of applications? [5]

OR

- Q2) a) Why is requirements analysis is important to network architecture and design? Give three reasons. [5]
 b) Describe why delay performance is important for VoIP and Teleconferencing. [5]

- Q3) a) What is service metrics? Explain service metrics for RMA, capacity, delay. [5]
 b) Your customer is a hospital that wants to upgrade its LAN. Develop a questionnaire to gather requirements from users, hospital management and staff. What kinds of questions would you ask to better understand their environment? [5]

OR

- Q4) a) Explain requirement mapping in a network process. [5]
 b) Explain in brief about Environment-Specific Thresholds and Limits. [5]
 Q5) a) Explain different flow attributes and common flow characteristics of network. [5]
 b) Explain the data sources and sinks with examples. [5]

OR

- Q6) a) Explain different Flow Models. [5]
 b) What are the differences between the Access/Distribution/Core architectural models? [5]