

SE - IT - CBCS  
Sem - IV - CN  
23/5/14

QP Code : NP-19737

(3 Hours)

[Total Marks :80]

- N.B. (1) Question No. 1 is **Compulsory**.  
(2) Attempt any **three** questions out of remaining questions.  
(3) Figures to the right indicate full marks.  
(4) Assumptions made should be clearly stated.  
(5) Assume suitable data wherever required and justify it.

1	(a) What is a network? What are its goals and applications?	05
	(b) Discuss and compare various types of networks.	05
	(c) Is there any relationship between transmission media and topology?	05
	(d) What are the goals of TCP/IP Model?	05
2	(a) What is OSI Model? Explain the functions and protocols and services of each layer.	10
	(b) Describe about the different Guided transmission Medias.	10
3	(a) Explain the functions of data link layer.	10
	(b) Explain the Taxonomy of multiple access protocols.	10
4	(a) Explain different categories of routing algorithms.	10
	(b) What is IP addressing? How it is classified? How is subnet addressing is performed.	10
5	(a) What are the elements of transport protocols?	10
	(b) Explain TCP Congestion Control.	10
6	Write short notes on (any 4):-  a) Connection oriented and connectionless service.  b) Sliding window protocol.  c) Mobile Telephone system.  d) Communication Satellite  e) Internet Control protocols.  f) UDP	20