B.E. (Computer Engineering) Third Semester (C.B.S.)
Introduction to Computer Network

P. Pages : 2

Time : Three Hours

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0521

NRJ/KW/17/4391

Max. Marks : 80

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Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.

1. a) What are the different types of Network topologies? Explain in detail. **6**

b) Explain various layers of OSI reference model. **7**

OR

2. a) Explain design issues for the layers. **6**

b) Write short notes on: **7**
i) Protocol   ii) Network criteria

3. a) Explain how signals travel in ground propagation, sky propagation and line of sight propagation. **7**

b) Explain the twisted-pair cable in detail. **6**

OR

4. a) Write short note on MODEM. **6**

b) Explain circuit switching and packet switching networks. **7**

5. a) Explain CSMA / CA random access protocol in detail. **7**

b) Explain the need of byte stuffing and bit stuffing with example. **6**

OR

6. a) Explain stop and wait protocol in detail. **5**

b) Write short note on **any two.** **8**

i) IEEE 802.5 ethernet frame format.

ii) Go-back n ARQ system.

iii) Sliding window protocol.

7.	a)	What is congestion? Explain open loop and closed loop congestion control.	**7**
	b)	What is distance vector? Explain distance vector routing algorithm.	**7**

OR

8.	a)	Explain link state Routing algorithm.	**7**
	b)	Explain various classes of IPV4 addresses.	**7**
9.	a)	Explain the Reliable and unreliable services in detail.	**7**
	b)	Explain TCP segment header in detail.	**7**

OR

10.	a)	Write short note on socket.	**5**
	b)	Explain TCP transmission policy.	**5**
	c)	Short note on silly window syndrome.	**4**
11.	a)	Explain design issues for the session layer.	**6**
	b)	Define cryptography. Explain its types with advantages and disadvantages.	**7**

OR

12.	a)	Explain Browser architecture.	**7**
	b)	Write short note on:	**6**
		i) Electronic mail	
		ii) Digital signature	
		iii) Authentication	

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