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B.E. (Computer Science Engineering) Sixth Semester (C.B.S.)

Computer Networks

P. Pages : 2 **NRT/KS/19/3493**

Time : Three Hours * 0 6 0 7 * Max. Marks : 80

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.
9. Illustrate your answers whenever necessary with the help of neat sketches.
10. Use of non programmable calculator is permitted.

1. a) What are different network criteria ? Explain. **5**

b) Draw and explain OSI reference model. **8**

OR

2. a) Differentiate between OSI and TCP/IP model. **6**

b) How can computer networks be classified based on transmission technology and scales. **7**

3. a) List and explain different framing methods with example. **7**

b) Explain stop and wait ARQ protocol. **6**

OR

4. a) Differentiate between Go-back N ARQ and selective Repeat ARQ. **6**

b) What are the 3 kinds of frames in HDLC protocol ? Explain each one in detail. **7**

5. a) Discuss about pure ALOHA and slotted ALOHA. **7**

b) Explain Reservation and polling with suitable explain. **6**

OR

6. a) Write down the difference between Traditional Ethernet and fast Ethernet. **6**

b) Write short note on LCP and NCP. **7**

7.	a)	Describe shortest path algorithm.	**7**
	b)	Explain static and dynamic routing with suitable example.	**7**

OR

8.		Write short note on :	**14**
		i) Mobile routing basic algorithm.	
		ii) Distance vector routing.	
		iii) Flooding.	
9.	a)	Explain Leaky bucket algorithm and Token bucket algorithm with proper diagram.	**10**
	b)	Explain ARP and RARP protocol.	**4**

OR

10.	a)	Compare IPV_4 and IPV_6.	**4**
	b)	Explain IP and ICMP protocol.	**4**
	c)	Describe how chock packet algorithm helps in congestion control.	**6**
11.	a)	Draw and explain Bluetooth architecture.	**7**
	b)	Explain in brief DSL technology.	**6**

OR

12.		Write short note on **any three.**	**13**
		i) ATM layers.	**5**
		ii) SONET	**5**
		iii) Wireless LAN 802.11	**5**
		iv) VLAN	**3**

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All our dreams can come true if we have the courage to pursue them.

~ Walt Disney