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

P. Pages : 2

Time : Three Hours

|||||| *0107* ||||||

KNT/KW/16/7409

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. Assume suitable data whenever necessary.

1. a) Explain TCP/IP model in detail and compare it with OSI Reference model. **9**

   b) Differentiate between computer Networks and distributed system. **3**

   c) Draw the different WAN topologies. **2**

OR

2. a) Mention the different design issues of each layer of OSI model in detail. **10**

   b) What are different types of service primitives? Explain with example. **4**

3. a) What is the significance of hamming distance? How is it used for error correction? Explain with example. **6**

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

OR

4. a) Explain in detail Go-Back-n protocol. **7**

   b) How does simplex stop and wait protocol works? Write the algorithms for it. **6**

5. a) How is ring maintenance done in token rings? **6**

   b) List the types of LCP packets in PPP protocol. **4**

   c) Write the concept behind ALOHA Protocol. **3**

OR

6. a) What are CSMA protocols? Explain each one in detail. **5**

   b) Explain difference between FDMA, TDMA, CDMA. **8**

| 7. | a) | Explain distance vector routing algorithm compare it with link state routing algorithm. | **8** |
| | b) | Explain shortest path algorithm. | **6** |

OR

| 8. | a) | What is the optimality principle in routing? Explain with an example the hierarchical routing algorithm. | **8** |
| | b) | Explain the mobile routing basic algorithm. | **6** |

| 9. | a) | How can congestion be defined? What are the factors that can cause it? | **5** |
| | b) | Explain Leaky bucket and token bucket algorithm. | **8** |

OR

| 10. | a) | Write a short note on Internet protocol (IP) | **6** |
| | b) | Write a short note on ARP, RARP with suitable example. | **7** |

| 11. | a) | Discuss in brief different quality of service (QOS) parameters used in transport layer. | **7** |
| | b) | Write the details of three-way handshake protocol for establishing connection in transport layer. | **6** |

OR

12.		Write short notes on **any three.**	
	i)	ISDN system architecture.	**4**
	ii)	ATM layers.	**4**
	iii)	Crash Recovery.	**4**
	iv)	Warless LANS: IEEE 802.11	**5**

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