B.E. (Electronics Engineering / Elect. & Telecommunication / Elect. & Communication Engineering) Eighth Semester (C.B.S.)

Computer Communication Network

P. Pages : 2 **NRJ/KW/17/4687/4699**

Time : Three Hours * 0 1 7 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. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What is computer network? Discuss different applications of computer networks. **6**

b) Clearly bring out the difference between LAN, MAN and WAN with examples. **7**

OR

2. a) With neat diagram, explain TCP/IP model. **7**

b) Draw and explain OSI reference model. **6**

3. a) Compare the characteristics of Data gram packet switching and virtual circuit packet switching. **6**

b) Write short note on IEEE 802.11 a, b and g. **7**

OR

4. a) Explain HDLC in detail. **6**

b) Explain briefly the concept of working of a Token ring (IEEE 802.5 standard) **7**

5. a) Explain the difference between pure ALOHA and slotted ALOHA. **7**

b) Explain FDDI token ling network. **7**

OR

6. a) What are sliding window protocols? Explain various cases in go-back-n protocol. **7**

b) Show that the window site for selective repeat ARQ protocol should be less than 2^{m-1}. **7**

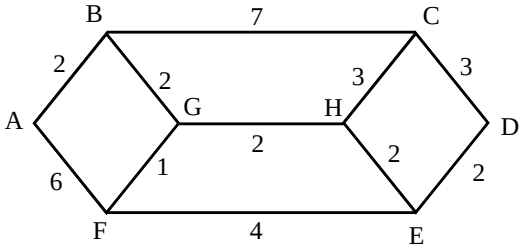
7. a) What is congestion control? Explain the leaky bucket algorithm. **6**

b) Differentiate between IPv4 and IPv6 **7**

OR

8. a) What are the different routing methods? Explain distance vector Routing. **7**

b) Given the following graph representing the network. Apply shortest path routing algorithm and find the routing table at each node. **6**



9. Write short notes on following **14**

i) File transfer protocol.

ii) Intra-domain and inter domain routing

iii) DNS

OR

10. a) Write short note on Network security and network administration. **7**

b) Explain public key algorithm. **7**

11. a) Explain the basic ITU-T recommendation. **6**

b) Define few quality of service parameters as applied to transport layer in a computer network. **7**

OR

12. Write short notes on **any three** of the following. **13**

i) Network tester

ii) Protocol analyzer

iii) Internet access Dial up/DSL

iv) Network simulation

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