

Roll No. ....

Total No. of Questions : 09]

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**B.Tech. (Sem. - 7<sup>th</sup> / 8<sup>th</sup>)**  
**COMPUTER NETWORKS**  
**SUBJECT CODE : CS - 402**  
**Paper ID : [A0328]**

[Note : Please fill subject code and paper ID on OMR]

**Time : 03 Hours**

**Maximum Marks : 60**

**Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

**Section - A**

**Q1)**

**(10 x 2 = 20)**

- a) Give the difference between packet switching and message switching.
- b) What are the services provided by the data link layer?
- c) What is Ethernet?
- d) Differentiate between analog and digital signals.
- e) What are the differences between internet, intranet and extranet?
- f) What is the function of a modem? Why is it called a modem?
- g) What are connection oriented and connection-less services?
- h) What is the purpose of the Hamming code?
- i) Name the four types of S-frames.
- j) Why are two buses needed in DQDB?



## Section - B

(4 x 5 = 20)

- Q2) What are the different access methods in Ethernet. Explain briefly.
- Q3) What are wireless networks. What protocols are used in wireless networks?
- Q4) What are the frame formats of a token ring and a token bus. Explain with the help of block diagram.
- Q5) What is internet. Give and explain some of the applications of it.
- Q6) Explain the mechanism of sliding window flow control.

## Section - C

(2 x 10 = 20)

- Q7) Compare and contrast the TCP/IP model and the OSI model in detail.
- Q8) Write notes on the following:
- (a) Sockets in Unix.
  - (b) NETBEUI protocol.
- Q9) Explain the following:
- (a) Hubs.
  - (b) SLIP.
  - (c) SMTP & MIME.
  - (d) CSMA/CD.

