

**COMPUTER NETWORKS ( BCA -402 )**

**Duration : 2hours**

**Max Marks : 50**

- Instructions :** 1) All questions are compulsory.  
2) Figures to the right indicate full marks.  
3) Start question on fresh page  
4) Total number of printed pages are 02

**Q.1 Answer the following ( 10 Marks )**

**A) What do you mean by the following (1X 5= 05 Marks )**

- |                       |               |              |
|-----------------------|---------------|--------------|
| i) Peer to peer Layer | ii)Interface  | iii)Protocol |
| iv) Topology          | v) Distortion |              |

**B) Name the following (1X 5= 05 Marks )**

- i) Transmission medium with highest speed.
- ii) Protocol for mapping logical address to physical address.
- iii) Port number with IP address.
- iv) Simultaneously held two way mode of data communication.
- v) Protocol that resolves host name to IP address in Application layer.

**Q.2 Answer the following (10 marks )**

**A. What is OSI model? How does it helps in understanding the computer communication?**

2

**B. Given data as 1 1 0 1 0 0 1 1 0 1 . Draw Manchester and differential Manchester waveform representing above data .**

3

**C. Write short note on the following Protocols a) DNS b) Bus Topology**

5

**Q.3 Answer the following**

**( 10 marks )**

- A. What are the reasons for implementing flow control mechanism in communication? 2
- B. Explain Stop and Wait ARQ Protocol for flow and error Control. 3
- C. Explain the use of following 5
  - 1) Generator Polynomial                      2) Piggybacking                      3) Three way handshake
  - 4) Router    5) Parity bit

**Q.4 Answer the following**

**(10 marks)**

- A. Explain the working of Address Resolution Protocol. 2
- B. For the Given IP 20.87.192.72. Find out the Class, Network Address and Default mask. 3
- C. Explain the Internet Protocol (IP) Datagram format used in Network Layer. 5

**Q.5 Answer the following :**

**( 10 marks )**

- A. What are the functions of transport layer? 2
- B. Give five points of differences between TCP /IP and UDP 3
- C. Explain the different types of High-level Data Link Control (HDLC) frame. 5

\*\*\*\*\*BEST OF LUCK\*\*\*\*\*