

Total No. of Questions : 8 ] [ Total No. of Printed Pages : 3

# Paper Code : 21322

## F-422

**B.C.A. (Fifth Semester) Examination, 2021**

**(New Course)**

**Paper-BCA-502-N**

**COMPUTER NETWORK**

**Time : Three Hours ] [ Maximum Marks : 70**

**Note :** Attempt any five questions. All questions carry equal i.e. 14 marks. Symbols are used have their usual meanings.

- 1. ✓ What is OSI model? List all the layers of OSI model and also write two function of each layer. 14
- 2. (a) Write the importance of TDM? What are the applications of TDM? Also write its disadvantages (if any). 7

(1)

P.T.O.

- (b) Explain Go-back-N sliding window protocol. 7
- 3. (a) Differentiate between packet switching and circuit switching. 7
- (b) What is ATM? What are its benefits? Explain. 7
- 4. ✓ (a) Differentiate between twisted pair, coaxial cable, and fiber optics. 7
- ✓(b) What is meant by simplex & half duplex communication system? Give example representing each. 7
- 5. ✓ (a) Describe error-detection and correction techniques. 7
- ✓(b) What is cyclic redundancy check? 7
- 6. (a) Describe the following with respect to transport layer: 7
  - (i) QOS (Quality of Service).
  - (ii) Connection Establishment.
  - (iii) Flow control and buffering.

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(2)

- (b) What are the following standards: 7  
IEEE 802.3, IEEE 802.4, AND IEEE  
802.5

How do they differ in terms of network topologies and access methods? Explain.

7. ✓(a) Why is multiplexing needed in data communication system? Briefly explain TDM and FDM. 7

- ✓(b) What is a Gateway? How do X.25 gateways link hosts and LANs? Explain. 7

8. ✓ Write short notes on any four: 14

(i) Wireless Communication.

✓(ii) OSI Model.

✓(iii) CSMA/CD.

✓(iv) Domain name system.

✓(v) Bridge.