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Total No. of Pages : 02

Total No. of Questions : 07

B.Sc(Cyber Security) (Sem.-3)

COMPUTER NETWORKS

Subject Code : UGCA1913

M.Code : 92750

Date of Examination : 12-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of TEN questions carrying TWO marks each.
2. **SECTION-B contains SIX questions** carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) What do you mean by Synchronous communication? Explain
- b) Differentiate between Simplex, Half Duplex and Full Duplex modes of communication.
- c) Write the advantages of Bus network topology.
- d) Explain in brief the term Distortion in reference to transmission impairments.
- e) Explain the term Multiplexing in brief.
- f) What is error control in data link layer? Explain
- g) What do you mean by congestion control? Explain.
- h) Differentiate between TCP and UDP Protocols.
- i) Explain in brief about HTTP protocol.
- j) Explain the term WWW in brief. (2×10=20)

SECTION-B

2. a) Write a detailed note on LAN, WAN and MAN. (5)
b) Differentiate between Analog and Digital Transmissions. (5)
3. **Write a detailed note on following :**
a) Optical fiber transmission b) Coaxial Cables c) Leased Lines. (4+3+3=10)
4. Write a detailed note on TCP/IP reference Model. Also compare OSI and TCP/IP Reference Models. (10)
5. Write a detailed note on SLIP and PPP protocols. Also differentiate between SLIP and PPP protocols. (10)
6. a) Write a detailed note on Network Layer Design Issues. (5)
b) Write a detailed note on leaky bucket algorithm of congestion control. (5)
7. a) Write a detailed not on Data Compression Techniques in reference to Presentation Layer. (6)
b) Write a detailed note on Session Layer Design Issues. (4)

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.