

S-725

Total Pages : 3

Roll No. -----

MCA-19

Data Communication and Computer Networks

Master of Computer Application (MCA)

5th Semester, Examination 2022(Dec.)

Time: 2 Hours

Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section – A

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

[2 x 19 = 38]

P.T.O.

- Q.1. What is meant by Data Communication? What are the various components of Data communication? Explain the layered tasks of OSI network Models.
- Q.2. Explain analog and digital transmission in detail with transmission impairment. Write about different transmission modes.
- Q.3. Explain Multiplexing. Write about FDM, WDM, TDM. Explain Data link control protocol in brief.
- Q.4. What is Switching and What are the different types of Switching Techniques, Explain? Write about Transmission media.
- Q.5. What are the different types of Error? What is meant by linear Block Code and explain Simple Parity-Check Code?

Section – B

(Short-answer-type questions)

Note: Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4 x 8 = 32]

- Q.1. Give a brief introduction to DNS, SMTP, FTP.
- Q.2. Differentiate between traditional Ethernet, Fast Ethernet and Gigabit Ethernet.
- Q.3. Explain Network layer protocols: ARP, IP, IPv6.
- Q.4. Explain Stop-And-Wait ARQ, Go-Back-N ARQ.
- Q.5. Explain HDLC frame format.
- Q.6. Differentiate between unicast routing and multicasting routing.
- Q.7. Write a brief note on Network layer design issues.
- Q.8. What is TCP/IP? Explain.
