

**MSCCS-11/MSCCS-205/
MSCCSC-205/MCA-205**

December – Examination 2021

**MSCCS (Final)/MCA (IInd Year)
Examination**

Data Communication and Networks

**Paper : MSCCS-11/MSCCS-205/
MSCCSC-205/MCA-205**

Time : 1½ Hours]

[Maximum Marks : 80

Note :- The question paper is divided into two Sections A and B. Write answers as per the given instructions.

Section–A

4×4=16

(Very Short Answer Type Questions)

Note :- Answer any *four* questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 4 marks.

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740 Turn Over

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Section-B

4×16=64

1. (i) What is wavelength ? Calculate the wavelength of 1 MHz frequency wave.
- (ii) What is Modem ?
- (iii) Give any *two* advantages and *two* disadvantages of Mesh topology.
- (iv) Define Data Communication. Explain its component in short.
- (v) Compute the CRC-4 character for the following message using a “Divisor” constant of 10011 : 1100 0110 1011 01.
- (vi) Define FTP and its applications.
- (vii) Give the differences between wired and wireless networks.
- (viii) Give the definition and need of multiplexing.

(Short Answer Type Questions)

Note :- Answer any *four* questions. Answer should not exceed **200** words. Each question carries 16 marks.

2. Distinguish among LAN, WAN and MAN.
3. Write a short note on the Coaxial Cables.
4. Describe Circuit Switching and Packet Switching.
5. What is a mask in IPv4 addressing ? What is a default mask in IPv4 addressing ?
6. Write a short note on Congestion Control.
7. What is Data Transmission ? Explain the difference between synchronous and asynchronous data transmission with suitable examples.
8. What do you understand by Security in computer networks ? How will you secure e-mail ?
9. Explain the differences between OSI model and TCP/IP model in detail.