

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

June – Examination 2022

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

**DATA COMMUNICATION
AND NETWORK**

**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.

1. (i) Explain Shannon's Data Communication Model.
 - (ii) Describe Coaxial Cable.
 - (iii) Distinguish between *two* major categories of transmission media.
 - (iv) What is Wavelength ? Give an example.
 - (v) What is the use of Domain Name System (DNS) ?
 - (vi) Why Multiplexing is needed in Data Communication ? Justify.
 - (vii) Explain IPv6 Address Hexadecimal Notation with an example.
 - (viii) Draw the topological structure of Bus topology with *four* nodes.
3. What is Slow Start Mechanism ? Explain how it plays a role in congestion control.
 4. What is Routing ? Explain Distance Vector Algorithm with suitable example.
 5. Describe OSI Reference Model in detail.
 6. Write a short note on Network Topologies.
 7. Explain Sliding Window Protocol in detail.
 8. Explain Code Division Multiplexing with suitable examples.
 9. Explain Error Detection Technique with suitable example.

Section-B **4×16=64**

(Short Answer Type Questions)

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

2. What is a Packet ? Explain the IP packet format with header and data sections with neat diagram.