12. What is Cryptography ? Explain the principles of cryptograph.

13. Differentiate between OSI and TCP/IP models in detail.

MSCCS–11/MSCCS–205/ MSCCSC–205/MCA–205

June – Examination 2024

MSCCS (Final)/MCA (IInd Year) Examination

DATA COMMUNICATION AND NETWORK

Paper : MSCCS–11/MSCCS–205/ MSCCSC–205/MCA–205

Time : 3 Hours] [*Maximum Marks : 80*

Note :– The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

Section–A 8×2=16

(Very Short Answer Type Questions)

Note :– Answer all 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 2 marks.

1. (i)   Classify the use of LAN and MAN network.

   (ii) Identify the names of topology that are used in network.

   (iii) Explain the use of Firewalls.

   (iv) Identify the name of OSI model layers.

   (v)   What is difference between Multiplexing and demultiplexing ?

   (vi) Write full form of PAN and WAN.

   (vii) What is use of HTTP and FTP protocols ?

   (viii) Write the full form of ARP and RARP.

Section–B   4×8=32
(Short Answer Type Questions)

Note :– Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 8 marks.

2. Differentiate between synchronous and asynchronous tansmission.

3. Explain the use and type of network.

4. Write the difference between TCP and UDP protocol.

5. Explain the use of Digital Signature.

6. Describe the circuit switching and packet switching.

7. Differentiate between IPv4 and IPv6.

8. Explain the Congestion Control in brief.

9. Explain following terms in brief :

   (a) Hub

   (b) Bridge and

   (c) Switch

Section–C   2×16=32
(Long Answer Type Questions)

Note :– Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 16 marks.

10. Explain the each layer of OSI Model.

11. Write short notes on the following :

    (a) Secure E-mail

    (b) Types of Topology

    (c) SSL (Secure Socket Layer)