Roll No. : .....

Total No. of Questions : **16**] [Total No. of Printed Pages : **3**

SEM2014

M.Sc. (IInd Semester) Examination, 2021

COMPUTER SCIENCE

Paper - MCS-202

(Data Communication and Networking)

Time : 1½ Hours] [*Maximum Marks : **40***

Note :– The question paper contains three Sections.

Section–A **(Marks : 1 × 10 = 10)**

Note :– Answer all the *ten* questions carry **1** mark each. The answer should not exceed **50** words.

Section–B **(Marks : 3 × 5 = 15)**

Note :– Answer *five* questions by selecting at least *one* question from each Unit. Each question carries **3** marks. Answer should not exceed **200** words.

Section–C **(Marks : 5 × 3 = 15)**

Note :– Answer *three* questions by selecting *one* question from each Unit. Each question carries **5** marks. The answer should not exceed **500** words.

Section–A

1. Attempt all questions. Answer should not exceed **50** words in each question.

   (i) Define FDM.

   (ii) How many types of Network ?

(iii) Define Datagram.

(iv) Explain stop and wait ARQ.

(v) Define Tunnelling.

(vi) Explain Network Addressing.

(vii) Describe categories of Cybercrime.

(viii) Explain DOS.

(ix) Define Cyber Law.

(x) Describe type of Phishing.

Section–B

Note :– Answer *five* questions in about **200** words by selecting at least *one* question from each Unit. Each question carries 3 marks.

Unit–I

2. Explain LAN topologies and security of Data Communication and Networking.

3. Describe Multiplexing and write *two* differences between TDM and CDM.

4. Define Message Switching of Networking.

Unit–II

5. Explain Data link control in DLL.

6. Difference between IPV4, IPV6 of Network Layer.

7. Describe user Datagram Protocol of Transport Layer.

Unit–III

8. Define Cybercrime and Information Security.

9. Explain types and techniques of ID theft.

10. Discuss Digital Signatures.

Section–C

Unit–I

11. Define and explain OSI Model.

12. Difference between Circuit Switching and Packet Switching.

Unit–II

13. Define Network Layer Protocols in detail.

14. Explain client-server Model of Application Layer.

Unit–III

15. Define cybercriminals and explain classification of cybercrime in detail.

16. Write short notes on the following :

    (i) SQL Injection Method in Cybercrime

    (ii) Anti-cybercrime Strategies