MCS–022

BACHELOR OF COMPUTER APPLICATIONS / MASTER OF COMPUTER APPLICATIONS

(REVISED) (BCA/MCA)

Term-End Examination

December, 2023

MCS–022 : OPERATING SYSTEM CONCEPTS AND NETWORKING MANAGEMENT

Time : 3 Hours *Maximum Marks : 100*

Weightage : 75%

Note : *Question No.**1** is compulsory. Attempt any* ***three*** *questions from the rest.*

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1. (a) Write the Linux/Unix commands for :

    2×5=10

    (i) List all hidden files in a directory.

    (ii) List all process currently running on the system.

P. T. O.

(iii) Set permission to a file, say "sample.txt" so that the file can be read by owner only.

(iv) Print last 10 lines of a file.

(v) Show all user, currently logged on.

(b) Why do we need a firewall ? Explain the working of firewall in detail. Also, explain the limitations of using firewall.   2+5+3

(c) Differentiate between FAT32 and FAT16 file systems. Explain the features of NTFS in context of Windows 2000 OS.   3+7

(d) What is X-Windows ? Explain the major components of Unix-based GUI's in X-Windows.   2+8

2. (a) What do you mean by Packet Switching ? Explain the Datagram and Virtual Circuit approach of packet switching.   6

(b) Explain POP3 and IMAP Protocols.   4

(c) What are Guided and Unguided Media ? Explain optical fibre. List the advantages and disadvantages of unguided media. 5+5

3. (a) Define Topology in context of Computer Network. List the advantages of Computer Network. 6

   (b) Explain the working of Ring Topology. 4

   (c) Explain the process of ApacheServer setting in Linux in detail. 10

4. (a) Explain the different user authentication methods. Differentiate symmetric and asymmetric cryptography. 6+4

   (b) Explain the Computer-Security Classification in detail. 10

5. Write short notes on the following : 5×4=20

   (a) Serial Processing

   (b) System calls

   (c) Virtual Machines

   (d) Wide Area Network

   (e) Virtual Private Network.

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