MCA (Revised) / BCA (Revised)

Term-End Examination

December, 2022

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.*

1. (a) Discuss Pipes, Filters and Redirection commands in LINUX, along with suitable examples and explanation.   *10*

    (b) Elucidate the following with reference to Windows XP Networking :   *10*

        (i)   TCP/IP Protocol settings

        (ii) VPN and Remote Networking facilities

(c) In context to computer security, explain the following : *6*

    (i) Integrity

    (ii) Confidentiality

    (iii) Availability

(d) Define authentication tokens. With reference to authentication tokens, explain the use of Hardware tokens and Software tokens. *6*

(e) Discuss Trivial File Transfer Protocol (TFTP) and TELNET. *8*

2. (a) Explain the features of Network Operating System and Distributed Operating System. *10*

(b) Define Domain Name System (DNS). In context to DNS, explain DNS Architecture and DNS Zones. *10*

3. (a) Discuss process and thread management in LINUX. *10*

(b) Discuss the file system, special files and file management in LINUX. *10*

4. (a) Discuss the following (giving an example for each) with reference to shell scripting in LINUX : *10*

    (i) variables

    (ii) if ... else statement

    (iii) echo command

    (iv) break and continue

  (b) Briefly discuss the following network connecting devices, mentioning their purpose, operating layer and working principle : *10*

    (i) Repeaters

    (ii) Hubs

    (iii) Bridges

    (iv) Routers

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

  (a) SNMP and UDP

  (b) LINUX Utilities

  (c) User-to-User Communication in LINUX

  (d) Redundant Array of Independent Disks (RAID) and its Implementation

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