MCA (Revised) / BCA (Revised)

Term-End Examination, 2019

MCS-022 : OPERATING SYSTEM CONCEPTS AND NETWORKING MANAGEMENT

Time : Three Hours]   [Maximum Marks : 100

(Weightage 75%)

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

1. (a) How collision can be avoided on CSMA/CD network ? Compare CSMA/CD and token passing access methods. [10]

   (b) Write a Shell Script program to find Greatest Common Divisor (GCD) for any two numbers. Ensure that your script carries out basic error checking. [10]

   (c) What is Network File System (NFS) ? Write steps to configure a Linux machine to work as on NFS server. [10]

(d) Explain functions of Primary Domain Controller. Also, explain the role of the 'primary domain controller' and 'backup domain controller' in enhancing security of window 2000 server.

[10]

2. (a) Explain the memory management model of the Linux Operating System. [10]

(b) Compare and Contrast the 'Mandatory Access Control" and "Discretionary Access Control" mechanism in windows 2000. [10]

3. (a) Discuss, how windows 2000 manage the domains. Also, explain how the trust relationship is created and managed between domains. [10]

(b) What is packet filtering ? Explain its advantages and limitations. How these limitations are overcome by stateful packet filtering firewall.

[10]

4. (a) Write the usage for the following Linux/Unix Commands. Give an example for each :

[2½×4=10]

        (i)   Netstat

        (ii)   Cmp

        (iii)   Ping

        (iv)   Chmod

   (b)   List and explain any five network topologies. Also, make suitable diagram for each.   [10]

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

   (a)   Multithreading

   (b)   Packet Switching

   (c)   IPSec

   (d)   EFS Services

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