

MCA (Revised) / BCA (Revised)

Term-End Examination, 2019

**MCS-022 : OPERATING SYSTEM CONCEPTS  
AND NETWORKING MANAGEMENT**

Time : Three Hours]

[Maximum Marks : 100

*(Weightage 75%)*

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

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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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