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MCS-022

**MASTER OF COMPUTER
APPLICATIONS (MCA)
(REVISED)/BACHELOR OF
COMPUTER APPLICATIONS (BCA)
(REVISED)**

Term-End Examination

December, 2021

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

Time : 3 Hours

Maximum Marks : 100

Weightage : 75%

Note : (i) Question No. 1 is compulsory.

(ii) Attempt any **three** questions from the
rest.

1. (a) Compare and contrast the Distributed operating system with the Network operating system. Give an example of each. 5
- (b) What is an X-window system ? Discuss the X-window library and X-toolkit. 5
- (c) What is a Multiprocessor Operating System ? Discuss the characteristics of multiprocessor operating system. 5
- (d) Distinguish between relative and absolute pathnames, using an examples for each in Linux. 5
- (e) Explain the features of user mode and kernel mode of Windows 2000 operating system. 5

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- (f) Discuss the role of “Backup Domain Controller” in Windows 2000 operating system. Support your discussion with suitable block diagram. 5
- (g) What is EFS service ? Describe the concept of encryption using EFS service. 5
- (h) Compare TFTP and FTP. Which protocol is used by TFTP at the transport layer and why ? 5
2. (a) Discuss the working of Token ring and Token bus. Give suitable example and supporting diagram for each. 10
- (b) In the context of Windows 2000, define Trust Relationship. Discuss the role of Kerberos and Domain Controller in maintaining the Trust relationship. 10

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3. (a) What is the Domain Name Server (DNS) ? Briefly discuss the utility of DNS. Write step-by-step procedure to configure DNS in Linux operating system. 10
- (b) List and describe the various security features in Windows 2000 operating system. 10
4. (a) What is Virtual Memory ? Explain the abstract model of virtual to physical address mapping with reference to Linux operating system. 10
- (b) Explain the following with reference to file organization of Windows 2000 operating system : 10
- (i) NTFS
- (ii) FAT 16
- (iii) FAT 32
- (iv) File Replication Service

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5. Write short notes on the following : $4 \times 5 = 20$

- (a) RAID levels
- (b) TCP/IP model
- (c) Virtual private network
- (d) SNMP architecture