

MCA (Revised) / BCA (Revised)

Term-End Examination

June, 2014

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

Time : 3 hours

Maximum Marks : 100

(Weightage 75%)

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

1. (a) Write the steps to configure a Windows 2000 computer to ensure that users can log-on to the server only during the specified times. 5
- (b) Differentiate the role and responsibilities of user mode and kernel mode of Windows 2000 system. 5
- (c) Explain the various file access control mechanisms provided by LINUX operating system. Also, give the suitable example for each. 8
- (d) List the important components of domain name server. Also, explain how the domain name server is configured in LINUX operating system. 8

- (e) How is print server configured in Windows 2000 ? Also, explain the importance of print queue management. 7
- (f) What is kerberos ? Explain the complete process of client authentication through kerberos. 7
2. (a) Write the use of following LINUX commands, with an example for each : 8
- (i) cmp (ii) sort
- (iii) grep (iv) chmod
- (b) Describe the addressing scheme used in the Network layer and Transport layer of TCP/IP model. 8
- (c) Differentiate between coaxial cable and optical fiber cable. 4
3. (a) What is Virtual Private Network (VPN) ? Describe the mechanism to create a virtual private network. Also, explain the significance of VPN in security. 10
- (b) Explain the principle of Token Ring protocol. Also , explain its working with the help of a suitable example. 8
- (c) List the functions of Network Interface Card (NIC). 2

4. (a) Write a shell script which will generate the list of users along with details of files those are created /modified by the respective user during the specified time. Also, draw the flow-chart of this shell script. **10**
- (b) Differentiate between LAN, MAN and WAN in terms of size, protocols, access mechanism, hardware devices and switching methods. **10**
5. Write short notes on the following (**any four**) :
- (a) NTFS **5x4=20**
- (b) Packet switching
- (c) IPsec
- (d) EFS services
- (e) Firewall
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