

03492

MCA (Revised)
Term-End Examination
June, 2011

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

Time : 3 hours

Maximum Marks : 100

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

1. (a) What is a fire wall ? How does it secure the system ? Explain the limitations of firewall. 6
- (b) Explain two approaches used to improve system performance by overlapping input, output and processing in CPU. 6
- (c) What is packet switching ? What are the two approaches for packet switching ? 6
- (d) What is meant by trust relationship ? Explain the importance of Kerberos and Domain Controllers in maintaining trust relationships. 6
- (e) What are the standard user groups in windows 2000 ? Explain the access privileges of each. 7

- (f) Write the Linux/Unix commands for the following : 6
- (i) List all the files in a directory that have 3 characters in their name.
 - (ii) Show if a user is logged on, their real name and mail status
 - (iii) Tell the system to continue running a process, even if the user logs out.
 - (iv) To allow a user to communicate with another user logged on by splitting the screen and providing two way communication.
- (g) Differentiate between absolute and relative path names, along with an example of each. 3
2. (a) List and explain the three file systems supported by windows 2000 ? What is file replication service ? 10
- (b) Which application layer protocol is used by network management frame-works to manage and monitor network devices ? Explain its architecture and working. 10
3. (a) Explain the abstract model of virtual memory used in Linux operating system. Give a suitable diagram to explain its working. 10

- (b) Assume we want to display a logon warning message, stating that “unauthorized access to this system is punishable” if an unauthorized user tries to log in. Write the steps to create the above mentioned logon warning message. 6
- (c) Explain the characteristics of multiprocessor operating system. 4
4. (a) What is stored in the Registry of Windows XP ? Explain the various components of a registry. Also, list the utilities that can be used to manage registry in windows. 7
- (b) Explain SNMP architecture with the help of a diagram. 6
- (c) Which topology has a dedicated point to point link to every other node ? Write its three advantages and three disadvantages of this topology. 7
5. Write short notes on the following : 20
- (a) Hubs
- (b) Optical fibre
- (c) Domain Name System
- (d) Pipes and Filters in Linux
- (e) Offline and Online communication
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