

MCA (Revised)

Term-End Examination

December, 2012

10685

**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) Explain the following with reference to WINDOWS 2000 O/S : 10
 - (i) Trust Relationships and Work Groups
 - (ii) Remote Access
 - (iii) IP Sec
 - (iv) User mode
- (b) Explain the memory management concepts in LINUX O/S. 10
- (c) List and explain the various Networking topologies. 10
- (d) Explain the various computer-security classifications recognised by Trusted Computer System Evaluation Criteria (TCSEC) 10

2. (a) List and explain the characteristics of Modern Operating Systems. 10
- (b) Explain the following with reference to Domain Name System(DNS) : 10
- (i) DNS Architecture
 - (ii) DNS Zones
3. (a) With the help of an example for each, write the usage and syntax for the following LINUX commands. $4 \times 2\frac{1}{2} = 10$
- (i) Cat
 - (ii) diff
 - (iii) Sort
 - (iv) Cmp
- (b) Write a shell script to convert all the lower case letters of a (text) file to upper case. 10
4. (a) Write the basic purpose and name the OSI layer where the following devices will be operating: $5 \times 2 = 10$
- (i) Repeater
 - (ii) Hub
 - (iii) Bridge
 - (iv) Router
 - (v) Gateway
- (b) Explain the following with reference to "Hardening" in WINDOWS 2000 O/S : $4 \times 2\frac{1}{2} = 10$
- (i) Hardening the O/S and application code
 - (ii) Hardening the file system security
 - (iii) Hardening the local security policies
 - (iv) Hardening the services

5. Write short notes on the following :

4x5=20

- (a) Fire Wall
 - (b) Packet Switching
 - (c) Unguided Transmission Media
 - (d) Multi threading
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