



BRAINWARE UNIVERSITY

Term End Examination 2019 – 20

Programme – Master of Science in Advanced Networking and Cyber Security

Course Name – Operating System Technologies

Course Code – MNCS101

(Semester – 1)

Time allotted: 2 Hours 30 Minutes

Full Marks: 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

20 x 1 = 20

1. Answer any *twenty* from the following
 - (i) 'ping' command works in

a. Transport layer	b. Session layer
c. Application layer	d. Physical layer
 - (ii) 192.168.10.12 is a class B

a. Public IP	b. Private IP
c. Broadcast IP	d. Unicast IP
 - (iii) Which one of the following is not true?

a. kernel is the program that constitutes the central core of the operating system	b. kernel is the first part of operating system to load into memory during booting
c. kernel is made of various modules which cannot be loaded in running operating system	d. kernel remains in the memory during the entire computer session
 - (iv) Which one of the following is not a real time operating system?

a. VxWorks	b. Windows CE
c. RTLinux	d. Palm OS

- (v) Which of the following systems software does the job of merging the records from two files into one?
- a. Security software
 - b. Utility program
 - c. Networking software
 - d. Documentation system
- (vi) If there are multiple recycle bin
- a. You can set different size for each recycle bin
 - b. You can choose which recycle bin to use to store your deleted files
 - c. You can make any one of them default recycle bin
 - d. None of above
- (vii) Fragmentation of the file system
- a. occurs only if the file system is used improperly
 - b. can always be prevented
 - c. can be temporarily removed by compaction
 - d. is a characteristic of all file systems
- (viii) Memory management is :
- a. not used in modern operating system
 - b. replaced with virtual memory on current systems
 - c. not used on multiprogramming systems
 - d. critical for even the simplest operating systems
- (ix) Which is not an Application Software?
- a. Windows NT
 - b. Page Maker
 - c. WinWord XP
 - d. Photoshop
- (x) Because of virtual memory, the memory can be shared among:
- a. processes
 - b. threads
 - c. instructions
 - d. None of the above
- (xi) Swap space exists in:
- a. primary memory
 - b. secondary memory
 - c. CPU
 - d. None of the above
- (xii) From the following, which is not a common file permission?
- a. Write
 - b. Execute
 - c. Stop
 - d. Read
- (xiii) The shortcut key to open a task manager is
- a. Alt + F1
 - b. Alt + Ctrl + Delete
 - c. Alt + Tab
 - d. F1

- (xiv) Which is not the function of the Operating System?
- a. Memory management
 - b. Disk management
 - c. Application management
 - d. Virus Protection
- (xv) Unix Operating System is an
- a. Multi User Operating System
 - b. Time Sharing Operating System
 - c. Multi-Tasking Operating System
 - d. All the Above
- (xvi) Which of the following memory unit that processor can access more rapidly
- a. Main Memory
 - b. Virtual Memory
 - c. Cache memory
 - d. Read Only Memory
- (xvii) The chunks of a memory are known as
- a. Sector
 - b. Offset
 - c. Page
 - d. Frame
- (xviii) Which of the following is an essential file of a MS-DOS boot disk?
- a. COMMAND.COM
 - b. START.COM
 - c. TREE.COM
 - d. VER.COM
- (xix) Which of the following requires a device driver?
- a. Register
 - b. Cache
 - c. Main memory
 - d. Disk
- (xx) Where does the swap space reside?
- a. RAM
 - b. Disk
 - c. ROM
 - d. On-chip cache
- (xxi) Main memory of the computer system is also called
- a. Non volatile
 - b. Volatile
 - c. Reserved
 - d. Large
- (xxii) Root directory of a disk should be placed
- a. at the fixed address in the main memory
 - b. at a fixed location on the disk
 - c. at the fixed location on system disk
 - d. anywhere on the disk
- (xxiii) Kernel is
- a. Core part of the OS
 - b. Core part of the Shell
 - c. Core part of the OS and Shell
 - d. None of above
- (xxiv) A set of rules that governs data communication
- a. Protocols
 - b. Standards
 - c. RFCs
 - d. None of above

(xxv) HUB works on

- | | |
|--------------------|--------------------|
| a. Network Layer | b. Transport Layer |
| c. Data Link Layer | d. None of above |

Group – B

(Short Answer Type Questions)

4 x 5 = 20

Answer any *four* from the following

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|----|--|---|
| 2. | Define the term ‘System Software’. | 5 |
| 3. | Define the ‘Booting Process’. | 5 |
| 4. | Differentiate between RAM and ROM. | 5 |
| 5. | What are the preliminary requirements for configuring a network? | 5 |
| 6. | Discuss the features of NTFS. | 5 |
| 7. | What is ‘Protocol’? Give one example. | 5 |

Group – C

(Long Answer Type Questions)

2 x 10 = 20

Answer any *two* from the following

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|-----|--|---|
| 8. | (a) Compare and contrast – FAT16 and FAT32. | 5 |
| | (b) Differentiate between Full POST and Mini POST. | 5 |
| 9. | (a) Discuss about the Private IP address scheme. | 5 |
| | (b) Why the ‘Subnet Mask’ is important in case of IP addressing? | 5 |
| 10. | (a) Discuss the roles of the boot files of Windows 98SE. | 5 |
| | (b) What is the role of ‘Device Drivers’? | 5 |
| 11. | (a) Discuss the role of Network Layer in the OSI Model. | 5 |
| | (b) What is ‘Data Encapsulation’? Draw the diagram. | 5 |
