

## **BRAINWARE UNIVERSITY**

# Course - MSc(HN) Operating System Technologies (MHN101)

(Semester - 1)

Time allotted: 3 Hours Full Marks: 70

[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)

 $1 \times 10 = 10$ 

1. Choose the right answers from the followings:-
I) RARP is responsible for resolving  (a) IP to MAC (b) MAC to IP (c) MAC to Name (d) Name to MAC
II) 172.16.0.251 is type IP address. (a) Class C (b) Class D (c) Classless (d) None
III) VHD stands for  (a) Virtual Hard-disk Drive (b) Virtual Hard-disk Device (c) All (d) None
IV) Name of the boot loader file in Windows 7 is  (a) BOOTMGR.COM (b) BOOTMGR.EXE (c) BOOTNGR.EXE (d) None
V) DNS resolves  (a) MAC to IP (b) Name to IP (c) All of the above (d) None of the above
VI) is the kernel file of Linux operating system.  (a) vnlinuz (b) vmlinuz (c) vmlinux (d) vnlinux
VII) 'TRACERT' command belongs to  (a) IGMP (b) ICMP (c) DHCP (d) None of the above
VIII) 'Encryption' is a feature of  (a) EXT2 (b) FAT32 (c) NTFS (d) None of the above
IX) 127.0.0.1 is called address. (a) Loop-free (b) Loop-back (c) Public (d) None of the above
X) The MAC sublayer is a part of layer of ISO-OSI Model.  (a) Network (b) Presentation (c) Data Link (d) None of the above

#### Group – B

(Short Answer Type Question) (Answer *Any three*)  $3 \times 5 = 15$ 

- 2. What is the relevance of "System Reserved Partition" in Windows 7.
- 3. Write the names and functions of the Windows 7 Ultimate boot files.
- 4. Explain the function of DHCP.
- 5. Write a short note on 'APIPA'.
- 6. Briefly discuss the features of FAT16 file system.

### Group – C

(Long Answer Type Question)
(Answer *Any three*)

 $3 \times 15 = 45$ 

- 7. a) What is 'Firewall'?
  - b) Explain the types of firewall.
  - c) Describe any one firewall type.
  - d) Write a short note on 'IMAP4'.

3+2+5+5

8. a) Write short notes on *any five* of the followings:-

HTTP, FTP, ARP, Telnet, NTP, TFTP

- b) Differentiate TCP vs. UDP.
- c) Explain the importance of 'Subnet Mask'.

 $(2 \times 5) + 3 + 2$ 

- 9. a) Define Operating System.
  - b) Explain the term 'kernel' and 'shell' of OS.
  - c) Differentiate between 'Multitasking OS' and 'Multiprocessing OS'.
  - d) Give two examples of 'Multiprocessing'.

3 + (2 + 2) + (3 + 3) + 2

- 10. a) Describe (i) FAT32 (ii) NTFS.
  - b) "FAT16 supports upto 2 GB drive space" justify it.
  - c) What are the utilities of SMTP and POP3.
  - d) Write a short note on "Microsoft Outlook Express".

(3+3)+3+(2+2)+2

- 11. a) Describe the concept of "Partition" in Hard Disk under MBR format.
  - b) What is "GUID Partition Table (GPT)"?
  - c) Explain the importance of 'Virtual Memory'.

5 + 5 + 5