Roll No. ....

24467

B. Tech. 7th Semester (IT)

Examination – December, 2016

SYSTEMS & NETWORK ADMINISTRATION

Paper : IT-403-F

Time : Three Hours] [*Maximum Marks : 100*

Note : First question is compulsory. Attempt any *five* questions taking at least *one* question from each section. All questions carry equal marks.

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

1. (a) What a log ?   10 × 2 = 20

   (b) What is UFS ?

   (c) What do you mean by Cloning of systems ?

   (d) What is open source software ?

   (e) What is system sharing ?

   (f) What is fixed masks ?

SECTION – D

8. (a) What do you mean by Denial of service (DOS) Attacks ? How these attacks can be detected and prevented ? Explain.   10

   (b) What is security planning ? Explain various categories of security such as C1, C2, C3, C4 in detail.   10

9. (a) Write a shell program that tells whether the number entered through the keyboard is odd or even.   10

   (b) What is shell scripting ? What are the features of Python Scripting ? How Python scripting is different from shell scripting ?   10

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(g) What is Radius ?

(h) What is the purpose of ping command ?

(i) What is firewall ?

(j) What is Wrapper ?

SECTION – A

2. (a) Compare and contrast NFS and NTFS file system in detail. 10

   (b) What do you mean by system performance tuning ? Why it is required ? How the performance of system can be improved ? 10

3. (a) Differentiate between UNIX and Windows operating system on the basis of performance, file system, processes and security. 10

   (b) How the creation of privileged and user accounts helps in providing the security ? How user accounts are different from group accounts ? 10

SECTION – B

4. (a) Explain the various steps during installation and configuration of device drivers in UNIX. 10

(b) How authentication and passwords are maintained in UNIX ? Explain in detail. 10

5. (a) What is kernel customization ? Explain the process of integrating multiple operating systems in a computer. 10

   (b) What is a File System ? How a file system can be repaired ? Also explain the backup and restoration of file system in detail. 10

SECTION – C

6. (a) What is the purpose of routing protocols ? Explain Network Address Translation (NAT) protocol in detail. 10

   (b) What is DNS server ? Explain the complete process of configuring a DNA Server. 10

7. (a) Explain the IP Addressing and Subnetting in detail by giving suitable examples. 10

   (b) What is Static and Dynamic Routing ? What are the advantages of dynamic routing ? How dynamic routing is different from static routing ? 10