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[Total No. of Questions - 9] [Total No. of Printed Pages - 3]

Jul.-23-0212

CS-604 (Linux Administration)

B.Tech. 6th (CBCS)

Time : 3 Hours

Max. Marks : 60

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C and D and all the subparts of the question in Section E.

#### SECTION - A

1. (a) What are the primary architectural differences between the Window and Linux operating systems. Explain. (5)  
(b) What are the things to consider before installing Linux server configuration. (5)
2. (a) Why does not Linux have a registry? And how X-Window System differs from the Windows GUI? (5)  
(b) What exactly is a kernel? Gives the specific steps required to compile Linux kernel. (5)

#### SECTION - B

3. (a) What do you mean by active and passive FTP? Discuss about the customization of FTP server. (5)  
(b) Explain, how we can create a secure, tunnel from your local system to a remote system using Secure Shell (SSH). (5)
4. (a) Discuss, about the specific steps in installation and configuration of a basic Postfix mail server. (5)

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- (b) Explain the importance of POP and IMAP server. (5)

#### SECTION - C

5. (a) Compare the Network File System (NFS) in Linux and Window. Also discuss about features of each NFS version. (5)  
(b) What do you mean by soft, hard and cross mounts? Discuss. (5)
6. (a) Discuss the impact in user's login process after NIS has been deployed for use. (5)  
(b) Explain the use of various NIS tools. (5)

#### SECTION - D

7. (a) Discuss about foreground and background process in Linux with suitable examples. (5)  
(b) Write a shell script to convert a decimal number into binary number. (5)
8. (a) Explain the process creation mechanism with suitable diagram. (5)  
(b) Write a shell script to calculate simple arithmetic operations using switch case. (5)

#### SECTION - E

9. (a) Is GNU the same as Linux?  
(b) What are the advantages of OSS?  
(c) What do you mean by boot loader?  
(d) What do you mean by mail transport agents (MTAs), mail delivery agents (MDAs), and mail user agents (MUAs)?

[P.T.O.]

- (e) What is DNS Server?
- (f) Give the names and use of various NIS tools.
- (g) What facilities are provided by Network Information Service (NIS)?
- (h) How Network File System (NFS) works in Linux?
- (i) What is shell script?
- (j) Explain the different types of shells. (10×2=20)