

22522

12425

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any FIVE of the following :** **10**
- (a) What is Shell ?
 - (b) List some text processing Linux utilities.
 - (c) State any four features of Vi editor.
 - (d) State any two commands for backup utilities. State their use.
 - (e) What is the role of proxy server in firewall ?
 - (f) What is Linux ? Give any two properties of Linux.
 - (g) Write syntax of IF statement in shell programming.
2. **Attempt any THREE of the following :** **12**
- (a) Describe the linux system startup and shutdown.
 - (b) Describe about case-esac statements with suitable example in shell programming.



- (c) State and explain the following commands with suitable example :
 - (i) Mkdir
 - (ii) Rmdir
- (d) Define system call. Explain how the system call differs from that of the library functions.

3. Attempt any THREE of the following :

12

- (a) Explain about following linux commands with suitable example :
 - (i) cut
 - (ii) diff
- (b) Describe working of RAID0 and RAID1 with suitable diagram.
- (c) Explain how TCP connections are established and terminated.
- (d) Write commands for following (linux).
 - (i) Copying a file from home directory to root directory.
 - (ii) Rename the file txt1 to chapter1.

4. Attempt any THREE of the following :

12

- (a) State and explain process state with suitable diagram.
- (b) Describe the following communication commands with suitable examples :
 - (i) wall
 - (ii) mail
- (c) Describe any four shell variables with its use.
- (d) Describe dF and dU commands with suitable examples.
- (e) Explain in detail linux Firewall.

5. Attempt any TWO of the following :

12

- (a) Write a shell program to find sum of n natural numbers.

- (b) Explain the following system call with an example :
- (i) create()
 - (ii) write()
 - (iii) open()
- (c) Give chmod commands for performing following task :
- (i) Create txt1.txt file read only
 - (ii) Change permission of the 'txt1.txt' file give all permissions to group.
 - (iii) To remove Read write permission for group while accessing 'txt1.txt' file.
 - (iv) Copy permissions of 'txt1.txt' file and apply to 'abc.txt' file.
 - (v) Display permissions of 'txt1.txt' file.
 - (vi) Give write permission to user and execute permission for other for accessing 'txt1.txt' file.

6. Attempt any TWO of the following :

12

- (a) Compare between CPIO and tar commands (any 6 points).
 - (b) Write steps how to setup a Samba File Server. What are the various Samba Advanced authentication options ?
 - (c) Write a short note on following :
 - (i) 'c' shell
 - (ii) Korn shell
-

