

Scheme-I

Sample Question Paper

Program Name : Diploma in Information Technology

Program Code : IF

Semester : Fifth

**Course Title : Open Source Operating System and Scripting Languages.
(Elective)**

Marks :70

Time:3Hrs.

22522

Instructions:

- (1)All questions are compulsory.
- (2)Illustrate your answers with neat sketches wherever necessary.
- (3)Figures to the right indicate full marks.
- (4)Assume suitable data if necessary.
- (5)Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following.

10 Marks

- a. State any four features of Linux Shell.
- b. List any two communication commands and also state their use
- c. State modes of vi editor.
- d. State any two commands for managing disk space and also state their use.
- e. Write any two advantages and disadvantages of NFS (Network File System).
- f. Define Context Switch.
- g. Describe the use of backslash (`\`) with example.

Q.2) Attempt any THREE of the following.

12 Marks

- a. Describe working of RAID 0 and RAID 1 with suitable diagram.
- b. Describe any four shell variables with its use.
- c. Describe any four services of linux.
- d. With suitable examples differentiate between grep and fgrep commands.

Q.3) Attempt any THREE of the following.

12 Marks

- a. Explain the use of Crontab program in Linux.
- B Describe use of following commands with example:
 - i. ping
 - ii. netstat
- c. Write the output for the following command:
 - i. ls -la
 - ii. ls -s
- d. Describe cp and mv file handling commands with example.

Q.4) Attempt any THREE of the following.

12 Marks

- a. Compare between C shell and Korn shell.
- b. Describe working of following command
 - i. diff file1.txt file2.txt
 - ii. cmp file1.txt file2.txt
- c. Write commands to perform following task:
 - i) Display all files starting with character 'a' and any two characters after it.
 - ii) To move all the files having prefix as 'abc' to directory 'student'.
 - iii) To display all files with names ending with 'st.sh'
 - iv) To display all files starting with any of these characters [abcd].
- d. write steps to acquire super user status(using two methods).
- e. Describe generic firewall configuration with suitable diagram.

Q.5) Attempt any TWO of the following.

12 Marks

- a. Write a shell script to accept a number from user and calculate sum of digits of entered number. (Hint: number=123. Sum of digit 1+2+3=6)
- b. With suitable diagram describe state transition diagram.
- c. Give chmod commands for performing following task:
 - i. Make 'abc.txt' file read only.
 - ii. Change permission of 'abc.txt' file. Give all permissions to user.
 - iii. To remove read and write permission for user while accessing 'abc.txt' file.
 - iv. Copy permissions of 'abc.txt' file and apply to 'xyz.txt' file.
 - v. Give write permission to user and execute permission for group for accessing 'abc.txt.' file.
 - vi. Display permissions of 'abc.txt' file.

Q.6) Attempt any TWO of the following.

12 Marks

- a. Write a shell script to accept two numbers from user. Calculate and display addition, subtraction, multiplication, division of entered number using choice entered by user. (Hint: Use case statement)
- b. Compare between cpio and tar commands. (Any 6 points)
- c. Write procedure to configure TCP/IP settings. Also state the use of IP address, subnet mask, default gateway and DNS server.

Scheme- I
Sample Test Paper - I

Program Name : Diploma in Information Technology

Program Code : IF

Semester : Fifth

Course Title : Open Source Operating System and Scripting Languages.
(Elective)

Marks : 20

22522

Time: 1 Hour.

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a. Describe different process state.
- b. Give any two examples of internal and external commands each.
- c. differentiate between **cat** and **tee** command.
- d. Describe use of logical operator **&&** with example
- e. Describe **wc** command with its options (any 2 options)
- f. State the use of **tr** command with its syntax.

Q.2 Attempt any THREE.

12 Marks

- a. Differentiate between Bourn shell and Bourn again shell.
- b. Describe octal method of **chmod** command with example.
- c. Describe any two uses of **cat** commands with example.
- d. List and explain different shell variable.

Scheme- I
Sample Test Paper - II

Program Name : Diploma in Information Technology

Program Code : IF

Semester : Fifth

Course Title : Open Source Operating System and Scripting Languages.
(Elective)

Marks : 20

Time: 1 Hour

22522

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a. Describe any four commands of the ex-mode of Vi editor.
- b. Give the importance of '#' and '\$' prompt in Linux.
- c. State the difference between fixed address and dynamic address with respect to network.
- d. Describe use of pipe operator with example.
- e. Write command for administrator to change password of 'user1'.
- f. State the use of su command.

Q.2 Attempt any THREE.

12 Marks

- a. Write shell script to calculate and display multiplication of 1 to 10 numbers.
- b. Give commands for performing following task with respect to user management in Linux:
 - i. Add a user
 - ii. Delete a user
 - iii. Add a user to a group
 - iv. Delete a user from a group
- c. Describe use of tcpdump and ifconfig commands with example.
- d. Write procedure to configure DHCP client.