

(2 ½ Hours)

[Total Marks: 75]

- N.B. 1) All questions are compulsory.
 2) Figures to the right indicate marks.
 3) Illustrations, in-depth answers and diagrams will be appreciated.
 4) Mixing of sub-questions is not allowed.

Q. 1 Attempt All (Each of 5Marks)**(15M)****(a) Multiple Choice Questions**

1. Original creator of Linux is
 - a. Richard Stallman
 - b. Dennis Ritchie
 - c. Ken Thompson
 - d. Linus Torvald
2. Linux is a
 - a. open source system
 - b. open source software
 - c. open server system
 - d. open server software
3. is not one of the Linux Distribution.
 - a. Ubuntu
 - b. Fedora
 - c. Microsoft Windows
 - d. Kali
4. SSH stands for
 - a. Secure Shell
 - b. Source Shell
 - c. System Shell
 - d. Server Shell
5. GNOME desktop stands for
 - a. GNU Network Object Model Environment
 - b. GCC Network Object Model Environment
 - c. GNU New Object Environment
 - d. GCC New Object Environment

(b) Fill in the blanks

1. _____ puts the operating system in memory.
2. _____ command is used to display information about command in Linux system.
3. _____ command immediately shutdown and reboot the machine.
4. ifconfig means _____.
5. _____ command is used to reverse characters in every line of a file.

(c) Short Answers

1. Role of Linux Kernel
2. Use of RPM
3. gedit
4. Bourne Shell
5. sudo command

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Q. 2 Attempt the following (Any THREE)(Each of 5Marks) (15M)

- (a) List Linux Distributions. Discuss any four of them.
- (b) Write any five features of Linux operating system.
- (c) Diagrammatically explain Linux architecture.
- (d) Explain the activities carried by shutdown process in Linux.
- (e) Write a note on Linux Community.
- (f) Define process. Explain ps command with its options and usage.

Q. 3 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) What is gedit and its features? Explain.
- (b) Explain any five general purpose utility commands with example.
- (c) Define command alias. How to create it? Give suitable examples.
- (d) Discuss File attributes in Linux.
- (e) How to modify permissions of files in Linux using chmod command? Explain.
- (f) List compression utility commands. Explain any two with examples.

Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) What are the uses of root user in Linux system?
- (b) Write a note on FTP.
- (c) What is the purpose of commands:- **ssh, ping, hostname, telnet, route**. Give suitable example.
- (d) Explain Boolean operators -a, -o and ! used in shell scripting with an example.
- (e) Define regular expression. What is the purpose of the following regular expression characters:- ^, \$, *, ?
- (f) Write a shell script to read a month number from the user and display corresponding month name.

Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) Give the importance of Linux in software ecosystem as Web Servers and Mobiles.
 - (b) What is the purpose of following environment variables?
HOME, PS1, SHELL, PATH, PS2
 - (c) What are the rules for having passwords in Linux security?
 - (d) Give the purpose of the following directories:-
/bin, /etc, /home, /sbin, /var
 - (e) List any three features of awk. Give its general syntax. Explain it with two different examples.
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