



Time: 2½ hrs.

- Note:
1. All questions are compulsory with internal choice.
 2. Draw neat diagrams wherever necessary.
 3. Figures to the right indicate full marks.

Q.1 Answer the following (any four) (20)

- (a) Explain the architecture of Linux Operating System.
- (b) Write a short note on Linux File Hierarchy structure.
- (c) Write a short note on Shell. Explain the different types of Shells.
- (d) What is Kernel? Write a note on the responsibilities of Kernel.
- (e) List and explain any five features of Linux operating system.
- (f) Explain the Linux File Commands.

Q.2 Answer the following (any four) (20)

- (a) Explain the /etc/passwd file.
- (b) Write a short note on SSH.
- (c) What is TCP/IP? Explain the layers of TCP/IP Model.
- (d) Describe the following command:
 - i. ping
 - ii. ifconfig
 - iii. ip
 - iv. netstat
 - v. route

(e) Explain the following commands with their syntax:

- i. sudo
- ii. mv
- iii. useradd
- iv. passwd
- v. userdel

(f) Write a short note on vi editor.

Q.3 Answer the following (any four) (20)

- (a) Write a short note on using multiple commands in Linux.
- (b) Write a shell script program to find the factorial of a number.
- (c) Write a short note on input and output redirection.
- (d) Explain pipes in Linux.
- (e) Write a short note on man.
- (f) Write a short note on variables used in shell scripting.

Q.4 Answer the following (any five) (15)

- (a) Differentiate between CLI and GUI Operating System.
- (b) What is Linux Distribution? List and describe any 3 Linux Distros.
- (c) Write a short note on Linux groups.
- (d) Explain the process to write and execute a script.
- (e) Explain modes of operation in vi editor.
- (f) Write a short note on cron table.

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