

(Time 2½ 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.
 - 5) Assume suitable data if required or not given.

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

- 1) _____ represents user's home directory.

(a) /	(b) \
(c) ~	(d)
- 2) _____ is not Linux distribution

(a) Centos	(b) Fedora
(c) Ubuntu	(d) MS Windows
- 3) **How do you rename file "new" to file "old"?**

a) mv new old	b) move new old	c) cp new old	d) rn new old
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- 4) **Full form of SSH is _____**

(a) Secure Shell	(b) System Shell
(c) Source Shell	(d) Superuser Shell
- 5) **Consider a command "echo "My name is khan" | gawk '{S4="university"; print S4}'" will print**

(a) My name is khan	(b) Khan
(c) university	(d) My name is univesity

(b) Fill in the blanks (copy, cp, \dev \bin, head , who, chmod)**(5)**

- 1) _____ command is used to copy files and directories?
- 2) _____ directory contain device special files
- 3) To display information of users _____ command is used.
- 4) _____ command is used to print first few lines of a file.
- 5) _____ is used to change file permissions.

(c) Short Answers**(5)**

- 1) State the rules for writing file name in Linux.
- 2) What is the need of cat command in Linux?
- 3) Define the term full duplex with respect to communication.
- 4) What do you mean by shell?
- 5) Give the name (path) of file containing user's password related information.

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

- (a) Explain the relationship between kernel and shell with a neat diagram.
- (b) What are the different points which make GUI more user friendly compare to command line interface?
- (c) Justify the importance of Linux as OS on web services and mobiles.
- (d) Discuss 'init' process along with its run levels.
- (e) Explain the following options for shutdown process.
 - -a
 - -r
 - -h
 - Time
 - Message
- (f) Write use of following directories in Linux:
 - i) /etc
 - ii) /root
 - iii) /bin
 - iv) /sbin
 - v) /lib

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

- (a) Write a note on following:
 - Launcher
 - Dash
 - Workspaces
- (b) State the purpose of following commands:
 - nslookup
 - dig
 - arp
 - factor
 - info
- (c) What do you mean by environmental variable? Explain following environmental variables in one line.
 - PATH
 - SHELL
 - HOME
 - PS2
- (d) Explain the use of following commands:
 - cal
 - date
 - wc
 - echo
 - whoami

- (e) Explain in brief hard link and soft link with suitable example.
- (f) Discuss following Linux Documentation commands: -
 - i) man
 - ii) info

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

- (a) Write a short note on FTP.
- (b) Discuss test command for file comparison.
- (c) State the purpose of following Regular Expressions:
^, \$, *, (), ?
- (d) Write a shell script to accept 2 numbers from user and one operator. Based on the operator entered perform addition, subtraction, multiplication and division.
- (e) Write any five privileges of administrator.
- (f) Assume that there is a file called "number" with following data

1	2
4	5
6	6
8	9

Write the purpose of awk command and command perform following:

- 1) Add two columns.
- 2) Find the average.
- 3) Multiply two columns.

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

- (a) State the use of ps command with any 4 options.
- (b) Explain following file compression utilities:
 - i) bzip2
 - ii) gzip
- (c) Describe following terms
 - HTTP
 - TCP/IP
- (d) List option of ls-l command and describe each column in short.
- (e) Discuss IP address.
