

(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 wherever required.

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

- In OSI network architecture, the routing is performed by**
 a) Data link b) physical c) network d) session
- How can you add Amit, a new user, to your system?**
 a) useradd b) adduser c) linuxconf d) all of these
- Which command is used to change directory?**
 a) pwd b) rm c) cd d) mv
- For text based calculator use _____ command.**
 a) calc c) bc c) cal d) none of these
- Full form of http _____**
 a) High through transfer policy
 b) Hypertext transfer protocol
 c) Head to this page
 d) Hypertext transport protocol

(b) Fill in the blanks**(?, Dennis Richie, pwd, \$, Linus Thorvald , x, I, U)**

- _____ command is used with vi editor to delete a single character.
- _____ founded the Linux Kernel.
- _____ command is used to check working directory.
- _____ command is used with vi editor to append text at start of line.
- The default prompt symbol for the bash shell is _____ sign.

(c) Short Answers

- Define Boot loader in Linux.
- What is the half duplex mode in networking?
- Define command line in Linux?
- Write syntax for cp command?
- How we get the calendar of the year 2018?

Q. P. Code: 34809

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

- Briefly explain runlevels of Linux.
- What is the architecture of Linux? Explain.
- Briefly explain the term process with its options and usage.
- What is file? Explain various categories of files in Linux.
- Give the booting steps? Explain.
- Explain in detail shut down process of Linux.

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

- Explain briefly three modes of vi editor.
- Explain following commands
 - cp
 - mv
 - cat
 - pwd
 - wc
- Explain in brief man, info and help command.
- What is the purpose of chmod command? Explain in detail.
- Write short note on command aliases.
- Explain following points in regards with environment variables:-
 - What is environment variable?
 - Command to view all environmental variable.
 - Command to view only global environmental variable.
 - Command to make local environmental variable.
 - Command to convert local to global environmental variable.

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

- Explain fields of /etc/passwd file.
- What is the purpose of regular expression? Explain its any four characters.
- Explain the commands: - telnet, route, hostname, ping, ifconfig
- List any three features of awk. Explain its syntax with examples.
- Write short note on HTTP.
- Write a shell script to display sum of factorial of first 'n' numbers.
[Read value of 'n' from user.]

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

- List features of Linux. Explain any four.
- What are the uses of root? Give the purpose of sudo command.
- Write a short note on 'ssh'.
- Give the purpose of HOME, PS2, PS1, SHELL, USER shell variables.
- Explain any two file compression utility with examples.
