

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2019
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain the Linux with its architecture. What are the different Linux distribution? Explain any two. 3+5
b) Define term 'culture of free software'? How Linux and UNIX is related? Explain. 2+5
2. a) Define and explain Shell? Differentiate between TCSH and KSH? 5+3
b) What are the different Linux supporting files? Explain. Differentiate between ext2, ext3 and ext4 file system. 5+2
3. a) What is general partitioning scheme while installing Linux Operating System and what do you prefer or recommend? 8
b) How can you monitor system performance in Linux? Explain with example 7
4. a) What are different run levels in Linux? Explain method to change these run levels. 8
b) Write the function of following command with example. 7
rpm -i, fdisk -l, at, iptables, alias, chgrp, chmod, man, pstree, nslookup
5. a) Write a program to check whether a given number is prime or not using shell scripts. 7
b) How can you manage for scheduling a job in Linux, explain with example. 8
6. a) What is MYSQL? What are the packages and configuration of MYSQL? 7
b) What is DHCP server? Define packages and configuration settings for both client and server sites. 8

7. Write short notes on any two:

2×5

- a) UNIX System
- b) DHCP Message
- c) Mounting and un-mounting

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Why Linux operating system is so popular? Differentiate between open source software and freeware. 7
b) What do you mean by booting? Define the function of following command with examples. (8)
 - a. ls -l ↵
 - b. df ↵
 - c. du ↵
 - d. chmod 741 ↵
 - e. top ↵
 - f. touch me ↵
 - g. fdisk -l ↵
2. a) Write step by step procedure to install Red-Hat Linux from DVD 7
b) What is Kudzu? What are the module configurations commands write with example of each? 8
3. a) What do you mean by run level? Explain different run level with their function. 8
b) What do you means by disk quota? Write the steps of setting user disk quotas. 7
4. a) Explain the file permissions in detail. 7
b) For what we need backing-up and restoring features in operating system? Explain backing up strategies. 8
5. a) Explain the procedure of setting up of web server? How a web site 8

can be hosted in LAN using Linux?

- b) Why DHCP server is necessary? Explain about the configuration file used? 7
- 6. a) What do you means by database server? Write the configuration for mysql database server? 7
- b) How can you configure DNS server in Linux system? Write down the configuration files. 8
- 7. Write short note on **any two**: 2×5
 - a) ISP simulation
 - b) Vi text editor
 - c) Root login vs super login

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2018
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) "IT is running on cloud and cloud is running on Linux." Justify the statement. 7
b) Write the purpose of following directories in Linux. 8
 - i) /home v) /dev
 - ii) /boot vi) /var
 - iii) /tmp vii) /proc
 - iv) /root viii) /etc
2. a) What is initrd? Explain the stages of Linux boot process. 7
b) What is SUDO? Why not use root account all the time? Explain. 8
3. a) What are modules on Linux system? How do you use them? Explain. 7
b) Explain the following user management commands with example of each. 8
useradd, usermod, groupadd, userdel
4. a) What do you mean by Shell Script? Write a shell script program to find the largest integer among given three integers. 7
b) What do you mean by shadow password file? Explain how you can make your password more secure and stronger. 8
5. a) What do you mean by web server? Why are they needed? Explain. 7
b) What do you mean by DHCP, DHCP server and DHCP client? How DHCP works? Explain. 8
6. a) Why is DNS important? Explain the process of DNS configuration in Linux. 7
b) What do you mean by database server? Explain the configuration of database server in linux. 8
7. Write short notes on any two: 2×5
 - (a) Command shell
 - (b) File Permissions
 - (c) ISP Simulation

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2022
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Why Linux operating system is so popular? Differentiate between open-source software and freeware software. 7
b) Define the function of following commands with examples: 8
 - i. ifconfig
 - ii. du
 - iii. top
 - iv. chmod 741
 - v. cat
 - vi. nslookup
 - vii. touch
2. a) Explain Partitioning in Linux? Define main partitions required during Linux installation. 7
b) What are the improvements offered by ~~BASH~~ shell. Write a shell script program to find the given number is palindrome. 8
3. a) What is a root user? Explain the methods to monitor system performance in Linux Environment. 8
b) Explain the symbolic and absolute method for giving permission to a file. Change the permission of a file named GPT.sh 7
 - (1) write only by owner
 - (2) read and execute by other
 - (3) Execute by all
 - (4) read by owner, write by group, read by others
4. a) How can you schedule jobs in Linux? Explain with an example. 7
b) What is Kudzu? What are the module configurations commands write with example of each? 8
5. a) How do you configure the host name and ports of a web server? Write down the steps to install, configure and start the web server (e.g. apache2) in brief. 7

- b) What is the purpose of DHCP Server? Explain DORA Process in detail. 8
6. a) What is a MYSQL Database server? Explain the configuration file of MYSQL Database server in Linux. 8
- b) If you are a system engineer for Linux based networks, how would you set up a DNS server and which GNU/Linux based operating system would you choose? Elaborate your answer. 7
7. Write short notes on any two: 2×5
- a) ISP simulation
 - b) Vi text editor
 - c) Root login Vs super login

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2020
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Why is Linux operating system popular? Differentiate between open source software and freeware. 7
b) What is a shell? Explain Linux file system. 8
2. a) What is MBR and GPT? Explain the boot process in Linux. 7
b) What is Kudzu? What are the module configurations commands? Explain with example of each. 8
3. a) Write the syntax for the file permission for the file system for a given filename "file.sh" for following conditions: 8
 - i. read write execute by owner
 - ii. read by all
 - iii. Execute by anybody
 - iv. read by owner, write by group, read by others
- b) What do you mean by disk quota? Write the steps of setting user disk quotas. 7
4. a) Explain system task scheduling using crontab. How do you restore files from your backup data? Explain. 8
b) Define KSH. Write a shell script program to check a given number is prime number. 7
5. a) Explain the procedure of setting up of web server? How a web site can be hosted in Linux? 8
b) Why DHCP server is necessary? Explain about the configuration file. 7
6. a) Write the steps to start, stop and configure MYSQL server in Linux. 8
b) How can you configure DNS server in Linux system? Write down the configuration files. 7

7. Write short notes on any two:

2×5

- a) ISP simulation
- b) Database server
- c) Root login Vs super login

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2021
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) "IT is running on cloud and cloud is running on Linux." Justify the statement. 7
b) Define and explain Shell? Differentiate between TCSH and KSH? 8
2. a) What are the different Linux supporting files? Explain. Differentiate between ext2, ext3 and ext4 file system. 7
b) What is disk partition? Write about disk partition naming and numbering convention in Linux. What is fdisk command use for, explain. 8
3. a) What is root account and root directory? How can you switch user in Linux from terminal? Also explain the importance of sudo command. 8
b) What do you mean by Shell Script? Write a shell script program to find the largest integer among given three integers. 7
4. a) Explain the following user management commands with example of each. 8
useradd, usermod, groupadd, userdel
b) Differentiate between Full and Incremental Backup. What is disk mirroring? Explain the process of creating backup with tools you know. 7
5. a) What do you mean by web server? Why are they needed? Explain. 7
b) What is DHCP server? Define packages and configuration settings for both client and server sites. 8
6. a) What is MYSQL? How can you configure MYSQL on Linux OS? 7
b) Explain about DNS and its importance. List configuration process of DNS server in Linux. 8

7. Write short notes on **any two**:

2×5

- a) Df and Du Command
- b) Integration of Server
- c) File Permissions

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2019
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain the Linux with its architecture. What are the different Linux distribution? Explain any two. 3+5
b) Define term 'culture of free software'? How Linux and UNIX is related? Explain. 2+5
2. a) Define and explain Shell? Differentiate between TCSH and KSH? 5+3
b) What are the different Linux supporting files? Explain. Differentiate between ext2, ext3 and ext4 file system. 5+2
3. a) What is general partitioning scheme while installing Linux Operating System and what do you prefer or recommend? 8
b) How can you monitor system performance in Linux? Explain with example 7
4. a) What are different run levels in Linux? Explain method to change these run levels. 8
b) Write the function of following command with example. 7
rpm -i, fdisk -l, at, iptables, alias, chgrp, chmod, man, pstree, nslookup
5. a) Write a program to check whether a given number is prime or not using shell scripts. 7
b) How can you manage for scheduling a job in Linux, explain with example. 8
6. a) What is MYSQL? What are the packages and configuration of MYSQL? 7
b) What is DHCP server? Define packages and configuration settings for both client and server sites. 8

7. Write short notes on **any two**:

2×5

- a) UNIX System
- b) DHCP Message
- c) Mounting and un-mounting

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Fall

Year : 2018
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) "IT is running on cloud and cloud is running on Linux." Justify the statement. 7
b) Write the purpose of following directories in Linux. 8
 - i) /home v) /dev
 - ii) /boot vi) /var
 - iii) /tmp vii) /proc
 - iv) /root viii) /etc
2. a) What is initrd? Explain the stages of Linux boot process. 7
b) What is SUDO? Why not use root account all the time? Explain. 8
3. a) What are modules on Linux system? How do you use them? Explain. 7
b) Explain the following user management commands with example of each. 8
useradd, usermod, groupadd, userdel
4. a) What do you mean by Shell Script? Write a shell script program to find the largest integer among given three integers. 7
b) What do you mean by shadow password file? Explain how you can make your password more secure and stronger. 8
5. a) What do you mean by web server? Why are they needed? Explain. 7
b) What do you mean by DHCP, DHCP server and DHCP client? How DHCP works? Explain. 8
6. a) Why is DNS important? Explain the process of DNS configuration in Linux. 7
b) What do you mean by database server? Explain the configuration of database server in linux. 8
7. Write short notes on any two: 2×5
 - (a) Command shell
 - (b) File Permissions
 - (c) ISP Simulation

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Spring

Year : 2018
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) How does open source becomes famous? Write the advantages of Linux over other operating system. 8
b) What is Grub? What is the configuration file for grub loader? Explain. 7
2. a) Write a shell script to find the largest among the four numbers. 8
b) Give hardware requirement for installing Linux operating system. Also elaborate the steps for installing the Red-Hat Linux from digital optical disc storage? 7
3. a) What are roles and responsibilities of a Linux administrator in Linux system? 8
b) Explain the procedure of adding, removing and modifying user accounts in Linux with necessary commands and examples? 7
4. a) What is Backup and Restore? Explain any two backup tools available in Linux? 8
b) How can you maintain the security in Linux? Write down the security check list in Linux. 7
5. a) What is DHCP server? How can you configure DHCP server and client? 8
b) Explain the procedure of setting up of web server? How a web site can be hosted in LAN using Linux? 7
6. a) What is MYSQL Database? Write the configuration file and setting for MYSQL Database. 8
b) What is BIND Server? Define configuration settings for DNS server. 7
7. Write short notes on any two: 2×5
 - a) Run level in linux
 - b) Simulation of ISP
 - c) Kudzu Hardware Detection
 - d) DNS Server

Level: Bachelor
Programme: BCA
Course: Linux

Semester –Fall

Year : 2017
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is linux file System? Explain file system hierarchy with their special purposes in linux. 7
- b) What do you mean by partitioning? Explain about main partitioning required while linux installation. 8
2. a) What is role of super user in linux? Explain about some tools to monitor system performance in linux. 7
- (b) Write the command Syntax for the following purpose. 8
 - i) To create a user “Linux” with password “redhat”
 - ii) To change the password for that user to “fedora”
 - iii) To create a group “Hackers”
 - iv) After all assign the group “Hackers” for the user “Linux”
 - v) After all provide comment name “Blackcat” and login shell “bash” for that user.
 - vi) Then assign the expiry date for that user account.
 - vii) To delete that group
 - viii) To remove that user
3. a) What is Backup and Restore? Explain any one Backup tool in Linux. 7
- b) How can you make secure files in Linux? Explain. 8
4. a) What are modules on Linux system? How do you use them? Explain. 7
- b) What do you mean by Disk Quata? Write the process of implementing Disk Quata in Linux. 8
5. a) What is role of DNS? Explain DNS configuration process in linux with example. 7
- b) Why is Apache Web Server popular? Discuss Apache Web Server configuration. 8

6. a) What is the purpose of DHCP server in computer network? Write the process of configuring DHCP server and client. 7
- b) What is Database Server? Explain configuration setting for MYSQL as database server. 8
7. Write short notes on **any two**: 2×5
- a) Scheduling System Tasks.
- b) Integration is servers.
- c) Linux vs. Unix

Sanjay

POKHARA UNIVERSITY AFFILIATE

LA GRANDEE INTERNATIONAL COLLEGE

Level: Bachelor

Final Assessment

Year:2018

Programme: BCA VII

Full Marks: 100

Course: Linux

Pass Marks: 50

Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. What do you understand by Linux Kernel? Is it legal to edit it? 8
Explain the term GUI?
- How can you determine the total memory used by LINUX? Why 7
Linux is considered as more secured than other operating systems?
- What are daemons? Enlist some Linux networking and 8
troubleshooting commands?
- Explain the procedure of setting up of web server? How a web site 7
can be hosted in LAN using Linux?
- Give hardware requirement for installing Linux operating system. 8
Also elaborate the steps for installing the Red-Hat Linux from DVD?
- Explain the procedure of adding, removing and modifying user 7
accounts in Linux with necessary commands and examples?
- What do you mean by DNS and reverse DNS? Explain BIND 8
software.
- What do you mean by Linux Shell? What is ksh? What are the basic 7
differences between BASH and DOS?
- What is crontab and explain its functionality and explain the format 8
of crontab? What do you understand by CLI?
- Explain the file permissions in detail. 7
- What do you mean by LILO? What is GNU GRUB? What is Linux 8
swap partition and what does it do?
- What do you mean by run level? Explain different run level with their 7
function
7. write short notes on : (any two) 2x5
 - a) File Security
 - b) ISP Simulation
 - c) NIS Server

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POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Linux

Semester: Spring

Year : 2016
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is Linux? Is it legal to edit Linux kernel? Is Linux operating system virus free? Explain. 7
b) What do you mean by Linux Shell? What is ksh? What are the basic differences between BASH and DOS? 8
2. a) What do you mean by LILO? What is GNU GRUB? What is Linux swap partition and what does it do? 8
b) What is SUDO? Describe the root account with the procedure to login as root user? 7
3. a) For what purpose we need following commands? Clarify. 7
 - a. touch
 - b. df -h
 - c. lsmod
 - d. ifconfig
 - e. chmod
 - f. cat
- b) Explain the procedure of adding, removing and modifying user accounts in Linux with necessary commands and examples. 8
4. a) Write a shell script program to find factorial of a given number.
b) For what we need backing-up and restoring features in operating system? Explain backing-up strategies.
5. a) What do you mean by web Server? What is the function of webalizer? Explain the configuration of web server. 7
b) What do you mean by DHCP, DHCP server and DHCP client? How DHCP works? Explain. 8
6. a) What do you mean by DNS and reverse DNS? Explain BIND software. 7
8

b) Explain the creation of database with MySQL. How can we load data from a file to MySQL database?

7. Write short notes on: (Any two)

2×5

- a) Linux Distros
- b) Kudzu
- c) File Security