TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/
SPECIALIZATION IN CYBER SECURITY (CS)
EXAMINATION : MAY- 2024
SEMESTER - V

Sub: Linux/Operating system Linux (BCA–542-20/BCA-CS–542-20)

Date : 23/05/2024   **Total Marks : 60**   **Time: 2.00 pm to 4.30 pm**

Instructions:
1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labeled diagrams wherever necessary.*

Q.1. **Fill in the blanks.** **(05)**

1. Linux operating system is based on ------------- operating system.
   a) UNIX   b) Windows 10
   c) Windows Server   d) None of Above
2. The ----------- directory contains files required to boot the Linux operating system.
   a)/   b) /home
   c) /boot   d) /etc
3. ----------------- is where kernel and its services are running in Linux.
   a)Kernel Space   b) User Space
   c) Memory Space   d) None of Above
4. The VIM editor has -------------- modes of operations.
   a)One   b)Two
   c) Three   d) Four
5. The -------------- command is used to create links in Linux.
   a) ln   b) link
   c)createlink   d) None of Above

Q.2. **State True/False.** **(05)**
1. In Linux operating system file names are case sensitive.
2. To change the file permissions in Linux chgrp command is used.
3. The UID for root user in Linux is zero.
4. To disable the LAN card (Network Card) ifdown command is used in Linux.
5. To view the running processes in Linux ps command is used.

Q.3. **Answer the following. (Solve any 5)** **(10)**
1. List UNIX and Linux flavors (Names)
2. List various shells used in Linux.
3. Define process in Linux and list its different states.
4. List various commands used to shut down and restart the Linux operating system.
5. Explain the use of touch command in Linux with various options and examples.
6. List special types of file permissions in Linux with its numeric value.

Q. 4. **Answer the following in detail. (Solve any 6)** **(30)**

  1. Explain working of ls, cp and mv commands used in Linux with options and examples.
  2. Explain the working of useradd and passwd commands with various options and examples.
  3. Write a short note on daemons in Linux.
  4. Compare soflinks and hardlinks in Linux with diagram. How to create it? Give examples.
  5. Explain the working of tar command with various options and examples.
  6. What is the use of VIM editor in Linux? State its features, advantages and disadvantages.
  7. What is the use of scheduling in Linux? Explain the working of crontab command with various options and examples.

Q. 5. **Answer the following in detail. (Solve any 1)** **(10)**
  1. Explain Linux File System Hierarchy (Linux Directory Structure) with diagram in detail.

  2. Explain the working of any four Network Management commands in Linux.

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