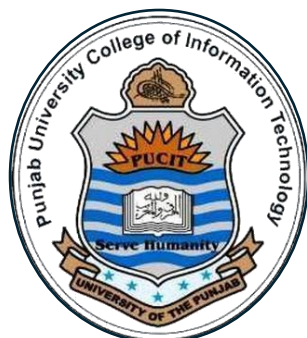


# Faculty of Computing and Information Technology

## University of the Punjab



**BSDS Fall 2021 Morning**

### Lab Quiz

Student ID:	Name:
Section: Morning/Afternoon	Student Signature:

**Course Code: CC-217-L**

**Course Title: Operating System Lab**

**Maximum Time: 105 Mins**

**Maximum Marks: 40**

### Instructions

- Read questions carefully before attempting.
- Attempt all questions on the answer sheet.
- If there is ambiguity in the paper, benefit will be given to the students.
- Understanding is the part of the examination; therefore, no query will be entered during exam.
- Start with the name of your creator, don't panic, He is always with you, don't cheat He is watching you.

Questions	1	2	3	Total
Total Marks	10	10	20	40
Marks Obtained				

### **Question 1:**

## **Basic Shell Commands**

- **Write and define two Linux commands that you like.**
- **Suppose I want to make a .txt document named Linux, and I want to write Linux is fun in it, What steps do I need to do to perform this task.**
- **How to copy the contents of a file /etc/passwd to f2.txt without using cp command.**

- **Explain What does mkdir and touch commands do and what is the difference between them.**
- **How can we count the occurrence of a word root in /etc/passwd?**

**Question 2:**

**PPFDT and Hard link / Soft link**

- **Draw the PPFDT of the command written below**  
**grep -o root /etc/passwd | wc -l**

- **Draw the PPFDT of the following command.**  
`sudo ls/proc/1/fd | less`
- **How do soft links differ from hard links in terms of their ability to link to directories?**
- **What are some limitations of hard links compared to soft links?**

### Question 3:

## File architecture and File permissions

- To copy f1.txt from ~/d1/d2/d3/ft.txt to ~/d4/d5/d6 directory what should be the minimum permissions on these directories and why? Explain your answer.
- Name all 7 types that exist in Linux.
- Suppose LazyCat a regular user a file f1 and wants to modify its permissions to rwxrw-r--- what would be the command to modify its permissions? Can root user change LazyCat's file permissions?

- In the permission string ``-rwxr-xr--``, what do the first three characters signify?
- When using the ``chmod`` command, what is the difference between symbolic and numeric(octal) modes?
- Convert the octal 644 into symbolic permissions like `rwxrwxrwx` form.
- After Using Linux Which OS do you prefer Windows or Linux. Also give reason accordingly.