Fast**National University of Computer & Emerging Sciences, Karachi  
Fall-2018 CS-Department**

**Lab Mid**

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| **Course Code: CL205** | **Course Name: Operating Systems Lab** | |
| **Instructor Name: Sumaiyah Zahid** | | |
| **Student Roll No:** | | **Section:** |

***"Be willing to take a chance, because you never know how perfect something could turn out to be."  
BEST OF LUCK!***

Instructions

* Rules are made to break them. So, invent yours and I’ll break.

**Time**: 60 minutes. **Max Marks:** 40 points

1. **marks)**

1.Create shortcut of the directory ‘mid’ which is in ‘home/user/Document/OS’ in ‘/home/user/Desktop’.

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2. Display the contents of ‘file1’, ‘file2’ and ‘studentList’ files.

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3. Create a write-only file in your home directory.

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4. Copy all files in the current directory whose names end in ".c" or ".h" into the subdirectory "Programs".

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5. List all files with extension ‘.mp3’ present in a directory ‘song’ which is in ‘/home/user/Document/Music’

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Differentiate between “sh” and “bash”. **(2.5 marks)**

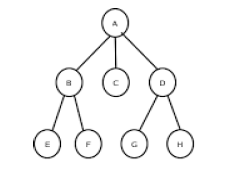
Write a shell script to rename file having extension .png to .jpeg **(3 marks)**

Write a function in shell scripting called plier which multiplies together a sequence of numbers.

**plier 2 6 4 (4.5 marks)**

**output: 48**

Write a shell script to list all the files of the current directory having read and write permission to the user. **(5 marks)**

Write a c program for this process tree.

Each node will print its name but by not using printf().

**(10 marks)**

Write System calls for Shared Memory **(5 marks)**



System call for named pipe is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

System call for unnamed pipe is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Explain functions and their arguments:

msgrcv(msgid,&msg,sizeof(msg),1,0);

retval = read(fd, buffer, sizeof(buffer));

write(1, buffer, sizeof(buffer));

**Bonus Question:**

Write anything which proves me you are a Linux User. Bonus marks depends on your creativity.