**Operating Systems Lab**

**Fall 2024**

**Lab Task 09:**

**Shell Scripting - Basics**

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**Lab Instructor:**

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**Question 1**

 The terminal will be cleared.

 The date command will save the current date and time in the lab9 file.

 The script then prints a message and displays the contents of the file using the cat command.

**Question 2**

 This indicates that the script should be run using the sh shell.

 Clears the terminal screen.

 Assigns the value 5 to the variable x.

 Initializes the variable y with the value 0.

 Prints the value of x to the terminal.

 Adds 5 to the value of x and assigns the result to y.

 Prints the value of y to the terminal.

**Question 3**

#!/bin/sh

echo "Enter first number:"

read num1

echo "Enter second number:"

read num2

sum=$(expr $num1 + $num2)

echo "The sum is: $sum"

**Question 4**

#!/bin/sh

echo "Enter folder name:"

read folder\_name

mkdir $folder\_name

date > $folder\_name/timestamp

echo "Folder and timestamp file created successfully."

**Question 5**

#!/bin/sh

grep -rwo "Linux" \*.txt | wc –l

**Explanation:**

grep -rwo "Linux" \*.txt: Searches for the word "Linux" in all .txt files recursively and prints only the matched word.

wc -l: Counts the number of lines, which corresponds to the number of occurrences.

**Question 6**

#!/bin/sh

a=5

b=7

c=5.5

result=$(echo "scale=4; ($a \* $b) / $c" | bc)

echo "The result is: $result"

**Explanation:**

The integers a and b are multiplied, and the result is divided by the float c.

bc is used to handle floating-point arithmetic and print the result with four decimal places.