Question Paper

Exam Date & Time: 28-Jun-2023 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal School of Information Sciences (MSIS), Manipal
Second Semester Master of Engineering - ME (VLSI Design) Degree Makeup Examination - June 2023

Scripting for VLSI [VLS 5203]

Marks: 100 **Duration: 180 mins.**

Wednesday, June 28, 2023

Answer all the questions.

1) Use Metacharacters/Globbing to do the task given below. (10)

a. Delete all the files starts with "File".
b. List all the file that end with in a number.
c. Using mnemonic method change the permission for all the .hdd files to "rwx, rw-,--x. .
d. Create regular files named unit1,unit2, unit3, unit4 and unit5.
e. Copy all files that have exactly five characters from /home/mcis to /home/sois [TLO 1.1] [5x2=10 Marks][L3]

2) Complete the following task using GNU/Linux commands and explain the script (10)

a. Extract the first column from the file, assume each column is separated by ":"
b. Print the contents from 5th line to 8th line.
c. Count the total number of lines from the file.
d. Move the file "myfile.txt" to the current directory
e. View the contents of "File1" and "File2"[TLO 1.2] [5x2=10 Marks] [L3]

3) Sample.txt contains student details as comma separated values. use the .txt file to answer the following questions using awk and explain the script (10)
Last name, first name, city, mark1, mark2
Jose, Paul, manipal, 10, 5
Joe, Oliver, Udupi, 9,4
Smisth, Mary, Goa, 3,6
a. Count how many students from "Goa"
b. Extract the 1st and 2nd record
c. Calculate the average marks for all the students
d. Find the average for "mark1"
e. Replace "Smisth" to"Smith"[TLO 2.1] [4X2.5=10 Marks] [L3]

4) Write the sed commands to complete the task (10)

a. Change the name Jose to Joe for all the occurrence
b. Delete the lines that contains "Lane"
c. Count the number of blank lines
d. Insert above the first line the title "PERSONAL FILE"
e. Append at the end of the file "THE END" [TLO 2.2] [4X2.5=10 Marks] [L3]

5) a. Write a shell script that takes two command line arguments. The script should accept file name as first argument and pattern as second argument. The program is used to test whether the given pattern is present or not. If the pattern is present, it should display the number of occurrences. If the pattern is not present is should display "No pattern match". The program should check the total number of arguments if the number argument is not present it should display correct usage. Id the number of argument is more than 3 or less than two, it should display too many arguments or improper arguments (10)

b.Write a shell script to get two real numbers from the user and calculate the product.[TLO 2.4] [5X2=10 Marks][L4]

6) Use grep command and regular expression to solve the following task (10)

a. Print the all the file names which have both "bash and perl".
b. Print the line that contains "pattern1" and "pattern2" and "pattern3".
c. Print all the lines that starts with the pattern "one".
d. Print all the lines with at least 50 characters.
e. Print all the lines that ends with numeric value.[TLO 2.3] [L3]

7) a. Write a Perl script to get the file name as user input and check whether the file exist or not. If the file exist then check whether the file is empty or not. (10)

b. Explain difference between chop and chomp operation
[TLO 3.1] [4X2.5=10 Marks][L4]

8) Write the following regular expressions and explain using Perl script (10)
a. Match a number, which is composed only of even digits, including 0
b. Match a number which may be negative or positive, may have a decimal point
c. Match a pattern consists of smaller case characters of 4 characters long.
d. Match the pattern which starts with uppercase character.
[TLO 3.2] [L3] [2.5X4=10 = Marks]

9) Write a Perl script using file handling [2.5X4=10Marks] (10)

a. Get the file name from the user
b. Open the file, if unsuccessful, print error message and exit
c. Add line numbers to the content.
d. Print the total number of lines in the file[TLO 3.3] [1x10 = 10 Marks] [L4]

10) Write a one line script to do the following, and explain the script (10)

a. To stop the process
b. To move background process to foreground
c. To suspended foreground process
d. Schedule job it should run every 15 days, the role of the job is remove all /tmp files.
[TLO 1.2] [1x10 = 10 Marks][L3]

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