Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

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

Scripting for VLSI [VLS 5203]

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

Wednesday, May 24, 2023

Answer all the questions.

1)   Differentiate between Globbing and Regular expression with an example[TLO 1.1] [1X10=10 Marks]   (10)
            [L3]

2)   (10)
            Write A Shell Script to Validate Password Strength.

            a. Get the password from the user. Here are the few assumptions for the password string.
            b. Length should be minimum of 8 characters.
            c. Contain both alphabet and number.
            d. Include both the small and capital case letters.
            [TLO 1.2] [4X2.5=10 Marks][L3]

3)   Write AWK one liners   (10)
            Name,Maths,Physics,Chemistry
            Blue,67,46,99
            Luck,78,83,80
            Joe,56,79,92
            Cyril,97,98,95
            Oliver,68,72,66
            Paul,100,100,100

            a. For the given input, print all lines that start with Bl or Ol.
            b. Extract the first and third columns
            c. Display the name who scored above 70 in "Maths"
            d. Print other than first line
            e. calculate the sum of third column except first line
            [TLO 2.1] [4X2.5=10 Marks][L3]

4)   Write a one line SED script to do the following task and explain the script.   (10)
            a. Insert the string "REPORT" in the first line.
            b. Replace the string "awk" with "sed" in all the occurrences.
            c. Print last line in the file
            d. Change "Client1" or "Client2 " or "Client3" to "Client "
            e. Find the total number of lines in the file.[TLO 2.2] [5X2=10 Marks][L3]

5)   Write a shell script to   (10)

a. displays a list of all the files in the current directory to which the user has read, write, and execute permissions.
b. display all lines that contain 'echo' in any file in the directory /etc/init.d.
c. display the lines in the file /etc/test that do not start with #.[TLO 2.4] [6+2+2 = 10 Marks][L4]

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

a. Print the lint contains a phone number of the form (91) xxx-xxxx.
b. Print the line is shorter than 10 characters.
c. Print the line starts with uppercase characters.
d. matches any number between 1 to 10.
e. match the pattern "perl" occurs at least twice.[TLO 2.3] [5x2 = 10 Marks][L3]

7)   Explain and illustrate the concept of pattern matching in Perl using any 5 Quantifier with an example [TLO 3.2] [4x2.5 = 10 Marks][L3]   (10)

8)   Write a Perl script to complete the below task   (10)

a. To add a line number to the given file
b. To print the lines where the length is less than 5
c. To print the lines where the pattern starts with "Hello"
d. To print the lines between 1 and 5 [TLO 3.2] [5x2 = 10 Marks][L3]

9)   Write a Perl program to   (10)

a. Get the file name from the user
b. Check the file is exist or not
c. Check the file is empty or not
d. Check the file have execute permission or not[TLO 3.3] [4x2.5 = 10 Marks][L4]

10)   Explain the difference between the following pair of Build in variable / subroutine related to AWK with an example.   (10)

NF,NR b) OFS, ORS c) FS,RS d)BEGIN,END[TLO 2.1] [4X2.5=10 Marks][L4]

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