

Question Paper

Exam Date & Time: 16-Aug-2022 (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 Examination(Make up) - August 2022

Scripting for VLSI [VLS 5203]

Marks: 100

Duration: 180 mins.

Tuesday, August 16,2022

Answer all the questions.

1) (10)

List the importance of scheduling the task with respect to VLSI.
Which command is used to check the list of scheduled jobs.
Schedule job it should run every 15 days, the role of the job is remove all /tmp files.[TLO 1.1] [2+2+6=10 Marks]

2) (10)

Write A Shell Script to Validate Password Strength.
Get the password from the user. Here are the few assumptions for the password string.
Length should be minimum of 8 characters.
Contain both alphabet and number.
Include both the small and capital case letters.
[TLO 1.2] [4X2.5=10 Marks]

3) Consider the following database for admission to professional course along with criteria have mentioned below: (10)

Name	Gender	Sem	Physics	Chemistry	Maths
Ajay	f	3	55	48	30
Anup	m	3	66	75	87
Aman	m	4	60	20	32
Ravi	m	4	55	59	70
Manu	m	7	62	72	65

Print all the student's names who scored the marks greater than 55 in maths.
Display first 5 students name
Print all the records where student name starts with "A"
Count total marks of "Ajay"[TLO 2.1] [4X2.5=10 Marks]

4) (10)

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

5) (10)

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

display the lines in the file /etc/passwd that do not start with #. [TLO 2.4] (5x2=10 Marks)

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

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

- 7) Write a perl program to perform following task (10)

- Get the phone number and country code from the user .

Combine both country code and phone number.
Check whether combined numbers have 12 digits
Convert all "1" to "2", "2" to "4" [TLO 3.2] [4x2.5 = 10 Marks]

- 8) Create a perl script name pattern.pl. The script that has the following features and explain the script. (10)

Prompt the user to enter the sentence (store in a variable) of at least 6 words
Pick the words with "ing"
Pick the words end with "ing"
Pick the words having only "a"
Count the total number of words with "ing"[TLO 3.2] (5x2=10 Marks)

- 9) Write a Perl program to (10)

Get the file name from the user
Check the file is exist or not
Check the file is empty or not
Check the file have execute permission or not[TLO 3.3] (4x2.5=10 Marks)

- 10) Explain the difference between the following pair of system variable related to AWK with an example. (10)

NF vs NR
OFS vs ORS
FS vs RS
FILENAME vs FNR [TLO 2.1] [4X2.5=10 Marks]

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