

Question Paper

Exam Date & Time: 23-Nov-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 Examination - November / December 2023

Scripting for VLSI [VLS 5203]

Marks: 100

Duration: 180 mins.

Thursday, November 23, 2023

Answer all the questions.

- 1) (10)
 - a. Define Kernel and Shell
 - b. Explain the importance of Operating Systems [TLO 1.1] [5x2=10 Marks]
- 2) (10)

Complete the following task using GNU/Linux commands and explain the script

 - a. Delete the second field from the file.
 - b. Sort the contents of the file.
 - c. Count the total number of lines in the file.
 - d. Convert all uppercase characters to lower case characters.[TLO 1.2] [4x2.5=10 Marks]
- 3) (10)

Sample.txt contains student details as comma separated values. use the .txt file to answer the following questions using awk and explain the script

Last name, first name, city, cgpa
Jose, Paul, manipal, 8.6
Joe, Oliver, Udupi, 9.6
Smith, Mary, Goa, 9.8

 - a. Combine last name and first name
 - b. List all the student first name starts with "J"
 - c. Find the average cgpa
 - d. Replace "Udupi" with "Mangalore"[TLO 2.1] [4X2.5=10 Marks]
- 4) (10)

Explain sed Substitute command with an example. [TLO 2.2] [1X10=10 Marks]
- 5) (10)

Explain the importance of Regular expression with an example.[TLO 2.4] [5X2=10 Marks]
- 6) (10)

Use grep command to solve the following task

 - a. Print the line which have both "bash and perl".
 - b. Print the line that contains "pattern1", "pattern2" or "pattern3".
 - c. Print all the lines that end with the pattern "ore".
 - d. Print all the lines with at least 40 characters.
 - e. Print all the lines that starts with numeric value. [TLO 2.3] [5X2 =10 Marks]
- 7) (10)

Write a Perl program

 - a. To get person name and corresponding phone from the user and store in a hash.
 - b. Get the name from the user and check whether the name is already exist or not.
 - c. Display the name sort by name.
 - d. Count total numbers of contacts are there in the hash.[TLO 3.1] [4X2.5=10 Marks]

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| 8) | Briefly explain File attributes with relevant examples [TLO 1.2] [1X10=10 Marks] | (10) |
| 9) | Explain file handling in Perl with an example.[TLO 3.3] [1X10 =10 Marks] | (10) |
| 10) | Explain different types looping constructs in Perl with an example.[TLO 3.1] [1x10 = 10 Marks] | (10) |

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