

Question Paper



MANIPAL UNIVERSITY

SCHOOL OF INFORMATION SCIENCES FIRST SEMESTER Master of Science- MSc (INFORMATION SCIENCE) DEGREE EXAMINATION- NOVEMBER 2017 (Repeater)

Date: Friday, November 17, 2017

Time : 10:00AM -1:00PM

Linux and C programming [MIS 501]

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the following Unix commands with an example (5 * 2) (10)
a) Touch b) cat c) mkdir d) ln e) uname
- 2) Explain grep command with an example (10)
- 3) Consider a file, data.lst, with the following content. (5 * 2) (10)

Anil Sharma			Vaishali Nagar
science	45	67	
Manoj Gupta			Sri Nagar Road
commerce	66	89	
Kamal Sharma			Shastri Nagar
commerce	81	32	
Rama Sharma			Vaishali Nagar
commerce	45	91	
Chirag Harwani			Vaishali Nagar
science	34	63	

Write the AWK script for the following:

- (a) Show all the lines/records between the specified range, to be entered by the user
- (b) Show all the records having the pattern Vaishali Nagar in it
- (c) Replace the pattern science with commerce
- (d) Print all the contents of this file along with the total of two subjects of each student

- 4) (e) Show all the records with surname 'Sharma'
For the given database (10 * 1) (10)

101	Aditya	0	14/11/2012
current			
102	Anil	10000	20/05/2011
saving			
103	Naman	0	20/08/2009
current			
104	Rama	10000	15/08/2010
saving			
105	Jyotsna	5000	16/06/2012
saving			
106	Mukesh	14000	20/12/2009
Current			
107	Yashasvi	14500	30/11/2011
saving			
108	Chirag	0	15/12/2012
current			
109	Arya	16000	14/12/2010
Current			
110	Puneet	130	16/11/2009
saving			

Give output of sed command:

- sed -n '1,2p' bank.lst
- sed -n '\$p' bank.lst
- sed -n '3,\$!p' bnk.lst
- sed -n '3,\$p' bank.lst
- sed -n '\$!p' bank.lst
- sed -n '5,7p' bank.lst
- sed -n -e '1,2p' -e '7,9p' bank.lst
- sed 'i\ This is bank file 'bank.lst
- sed -n '/[Cc]urrent/p' bank.lst
- sed -n '/current/w bkk.lst' bank.lst

- 5) Explain the following stages with respect to C Compilation Model (2.5 * 4) (10)

- Preprocessor
- Compiler
- Assembler
- Executable

- 6) Explain the following functions used for file management in (10)

C. (2.5 * 4)

a. fopen() b. fputc() c. fgetc() d. fclose()

- 7) Bring out the difference between typedef and #define. (10)
Explain with an example
- 8) Define Structures. Write a program to read and display ten (10)
employee information like EmployeeID, EmployeeName,
EmployeeAge and Salary. Display the details of employees
whose age is between 21 and 26
- 9) Write a program in C to copy the content of one file to (10)
another file with appropriate comments
- 10) Write a Program to create two matrices. Write separate (10)
functions to ADD two matrices and Compare two
matrices

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