

Reg. No.

SCHOOL OF INFORMATION SCIENCES
MANIPAL UNIVERSITY, MANIPAL

FIRST SEMESTER MASTER OF ENGINEERING - **ME** (EMBEDDED SYSTEMS) DEGREE
EXAMINATION (MAKE-UP) – JULY 2017

SUBJECT: ESD 615.2 (ELECTIVE 1) –LINUX & SCRIPTING LANGUAGES

Tuesday, July 11, 2017

Time: 10.00 – 13.00 Hrs.

Max. Marks: 100

1.
 - A) Explain how file permissions can be modified using the 'chmod' command, Using numeric method .
 - B) Briefly explain the difference between hardlink and softlink with an example?
(5+5=10 marks)

2. Write a shell script to
 - a) Calculate Fibonacci number series and explain the script.
 - b) Get the file name from the user and check whether the file exists or not, if exists find out the permission of the file.
(5+5=10 marks)

3. Write scripts for the following(do not use sed and awk)
 - a) Count total number of words in the file.
 - b) List all the lines that have the letter "e" in it.
 - c) List the 1st and 10th characters of each in the file.
 - d) Count the number of directories to be changed to reach the "pwd"
 - e) Add line numbers to a file.
(2+2+2+2+2=10 marks)

4. Explain the utilities in Linux with an example for each given below
 - a) sort
 - b) paste
 - c) tee
 - d) join
 - e) tr
(2+2+2+2+2=10 marks)

5. Using dialog utility writes a script to display the following menu

- i) Issue a book
- ii) Return a book
- iii) Delete a book.
- iv) Exit

Each of the above options should have a sub menu that asks for the name of the book and then echo the action that is done. Explain the working of the commands used and the conditional statement used in the script.

(10 marks)

6. Write a one line SED script to do the following task and explain the script.

- a) Delete all the empty lines
- b) Print the line which is having "a" as the 2nd character.
- 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.

(2+2+2+2+2=10 marks)

7. Explain the functionality of trap with an example

(10 marks)

8. Write the awk script and explain that

- A) Emulates wc command
- B) To sort the login names in password file
- C) Delete 3rd and 5th line of a file

(5+3+2=10 marks)

9. A) Explain with example how subroutines are defined and used in perl, also specify how parameters are passed to these subroutines.

B) Write a perl program to check if the input string is a Palindrome.

(5+5=10 marks)

10. Write short notes on makefile. Elaborate on the necessity of makefile with an example.

(10 marks)
