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Roll No. : .....

**333654(33)**

**B. E. (Sixth Semester) Examination, 2020**

*APR-MAY 2022*

**(New Scheme)**

**(IT Branch)**

**UNIX & SHELL PROGRAMMING**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : Attempt all questions. Part (a) of each question is compulsory and carries 2 marks. Attempt any two parts from (b), (c) and (d). Which carry 7 marks each.*

**Unit-I**

1. (a) Define script command with an example. 2
- (b) Explain the architecture of UNIX operating system with a neat diagram. 7

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- (c) Explain the various modes of Vi editor with a neat diagram. 7
- (d) Write short notes on : 7
- (i) File handling utilities.
  - (ii) Disk utilities

### Unit-II

2. (a) Define Alias. 2
- (b) Write a shell script to find a Fibonacci series of a given number. 7
- (c) Write a shell script to find factorial of a given integer. 7
- (d) Write a shell script that accept a file name, starting and ending line numbers as arguments and display all the lines between the given line numbers. 7

### Unit-III

3. (a) Define grep command with syntax. 2
- (b) Explain any five options of grep command with suitable example. 7

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- (c) Give structure of awk script and explain any five system variables used in awk programming. 7
- (d) Give structure of sed and explain any five commands used in sed. 7

### Unit-IV

4. (a) Define exit status of a command. 2
- (b) Explain the various features of Korn shell. 7
- (c) Explain the command execution process in Korn shell with example. 7
- (d) Write short notes on : 7
- (i) Eval command
  - (ii) Environmental variables

### Unit-V

5. (a) Define Inode. 2
- (b) Explain namei algorithm. 7
- (c) Explain in detail about structure of regular file in UNIX. 7

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(d) Write short notes on : 7

(i) Link and Unlink

(ii) Stat and Fstat