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Roll No. : .....

**333654(33)**

**B. E. (Sixth Semester) Examination, April-May 2021**

**(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 carry 2 marks. Attempt any two parts from (b), (c) and (d) of each question and carry 7 marks each.***

**Unit-I**

1. (a) Write the output on following : 2
- (i) date +%y
  - (ii) mkdir -p ibr/ib/i

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- (b) Explain in detail cut, paste and join command with example. 7
- (c) Explain the various modes of vi editor with example. 7
- (d) Explain the file access permission with suitable example in details. 7

**Unit-II**

2. (a) Write the output on following : 2

```
a = 10      b = 20
echo        $ a + $ b
echo        'expr $ a + $ b'
```

- (b) Explain : 7
  - (i) Redirection
  - (ii) Quotes
- (c) Write a shell script for accepting the following information and string file. 7
  - (i) customer name
  - (ii) item description
  - (iii) quantity
  - (iv) rate

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The user should get the facility to enter as many records as he/she wants.

- (d) What is the importance of Aliases? Explain with example. 7

**Unit-III**

3. (a) Write the output on following : 2

- (i) `awk 1/sales/ {print}'files`
- (ii) `awk 1/sales/ {print$ 0}'files`

- (b) Define GREP command. Explain the family of GREP command with example. 7
- (c) Define SED command. Explain any five options of SED command with suitable example. 7
- (d) Write an AWK script to find the number of characters, words and lines in a file. 7

**Unit-IV**

4. (a) Write the output on following : 2

```
a = 100      b = 200
```

- (i) `(( res = a + b))`

```
print "The value of res = $ res"
```

- (ii) `let ans = a + b`  
`print "The value of ans = $ ans"`
- (b) Write the various features of KORN shell. Explain it. 7
- (c) Explain the concept of variable in KORN shell with suitable examples. 7
- (d) Explain the select loop statement with suitable program. 7

### Unit-V

5. (a) Write the output of following : 2  
`set 100 per = 5`  
`repeat $ 100 per echo "welcome to C shell"`
- (b) Describe the various features of C shell in detail. 7
- (c) Explain the changing positional parameter and argument validation of C shell. 7
- (d) Describe an algorithm for conversion of a path name to an inode. 7