## B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

00303    **Term-End Examination**

**December, 2018**

### BICS-026 : UNIX INTERNALS AND SHELL PROGRAMMING

*Time : 3 hours*                    *Maximum Marks : 70*

**Note :** *Answer any* **seven** *questions. All questions carry equal marks.*

1.  Explain the architecture of UNIX operating system with the help of neat diagram.    *10*

2.  What are file and directory permissions ? Explain how directory permissions are used in conjunction with file permissions to determine overall permissions.    *10*

3.  Explain shell variable, shell script and shell command.    *10*

4.  Why do we use sockets ? Discuss the following system calls of socket mechanism :    *10*
    (i)    socket()
    (ii)   bind()
    (iii)  connect()
    (iv)   accept()

**5.** Write a shell script to find out whether a user whose login name passed as the parameter is currently logged in or out. If the user is logged in, send the file 'hello' which is available in the current directory to his terminal. *10*

**6.** Discuss with examples, the mechanism for string handling and command line arguments in shell environment. *10*

**7.** Write a shell script to accept a string as command line argument and reverse it. *10*

**8.** Explain the components of the context of a process with the help of neat diagram. *10*

**9.** Explain buffer headers and structured buffer pool. *10*

**10.** Write short notes on the following : *5+5*

(a) Open Read and Write in File System

(b) Mounting and Unmounting File System

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