

U.S.N.

--	--	--	--	--	--	--	--	--	--

# **BMS College of Engineering, Bangalore-560019**

(Autonomous Institute, Affiliated to VTU, Belgaum)

## **MAY/JUNE 2015 Semester End Main Examinations**

**Course: Unix Programming**  
**Course Code: 09CI4GCUNX**

**Duration: 3 Hours**  
**Max Marks:100**  
**Date:16.05.2015**

**Instructions: Answer any five full questions choosing one from each unit.**

### **UNIT - I**

1. a) Differentiate between internal and external commands with suitable examples. 06  
Also, discuss the flexibility of unix commands usage.
- b) With a neat diagram justify the division of labour between kernel and shell in an Unix Operating System 06
- c) With relevant commands explain how a terminal's characteristic can be set and altered. 08  
Write suitable unix commands to achieve the following:
  - i) compare two files and display the differing bytes in the files
  - ii) display non-printable characters contained in a file
  - iii) display the version of operating system used
  - iv) Record login session in a file.

### **UNIT - II**

2. a) With suitable syntax discuss the use of following commands. 08
  - i) finger ii) mesg iii) zip and unzip iv) tar
- b) Describe the methods to change the file permissions with examples. 04
- c) Bring out the differences between hard links and soft links with example. 04
- d) Use find command to locate from your home directory 04
  - i)All files having inode number 9076
  - ii)All directories having permissions 666
  - iii)All files not accessed for more than a year
  - iv)All but C program files.

### **UNIT - III**

3. a) Explain the mechanism of process creation 08
- b) Explain the different characters used by the Extended Regular Expression 04
- c) Explain the different options with example of grep command. 08

#### UNIT - IV

4. a) What is shell programming? Explain with examples how expressions are evaluated in shell programming using test and [ ]. 08  
b) What are the shell parameters \$\*, \$# and \$? Explain very briefly. 06  
c) Write a shell script to find the factorial of a given number. 06

**OR**

5. a) Explain how expr is used to 06  
    i. Perform arithmetic operations.  
    ii. String handling.  
b) What is 'for' loop in a shell script? Explain the different ways of using for loops with examples. 06  
c) Write a shell script to check if a given string is palindrome or not. 08

#### UNIT - V

6. a) Discuss the use of AWK Command with syntax. Also list and explain any four built in variables in AWK. 08  
b) Describe the importance of BEGIN and END sections in AWK Script with examples. 06  
c) Write AWK program to provide extra spaces at the end of a line if required so that the length is maintained at 127. 06

**OR**

7. a) Explain the any 4 built in functions of AWK with examples. 08  
b) Discuss associative arrays with respect to PERL programming with example. 06  
c) Write a PERL program that accepts decimal number as argument and convert it into binary. 06

\*\*\*\*\*