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

(Autonomous Institute, Affiliated to VTU, Belgaum)

**MAY/JUNE 2014 Semester End Main Examinations**

**Course: Unix Programming**

**Duration : 3 hours**

**Course Code: 09CI4GCUNX**

**Max Marks: 100**

**Date: 05.06.2014**

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

### **UNIT 1**

- |   |    |  |    |
|---|----|--|----|
| 1 | a. | Distinguish between i) internal commands & external commands ii) Argument & Option | 06 |
|   | b. | Write the differences between absolute and relative pathnames with examples.       | 06 |
|   | c. | Explain the following commands with examples i) bc ii) stty iii) od iv) comm       | 04 |
|   | d. | Explain different types of files in Unix.  | 04 |

### **UNIT 2**

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|---|----|--|----|
| 2 | a. | Explain finger, talk and mesg commands as related to communication under Unix OS | 05 |
|   | b. | Discuss how the permission of a file can be changed using octal digits           | 05 |
|   | c. | Clearly differentiate between hard links & soft links                            | 06 |
|   | d. | Explain gzip & gunzip commands   | 04 |

### **UNIT 3**

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|---|----|---|----|
| 3 | a. | Describe the mechanism of process creation. | 06 |
|   | b. | Explain grep command with options.          | 08 |
|   | c. | How is shell process created? Explain.      | 06 |

### **UNIT 4**

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|---|----|---|----|
| 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**

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|---|----|--|----|
| 5 | a. | Explain how <code>expr</code> 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 5**

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

**OR**

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

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