

24250

B. Tech. 5th Semester (Information Technology)

Examination, December-2012

**SYSTEM PROGRAMMING AND SYSTEM
ADMINISTRATION**

Paper- IT-303-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Q. No. 1 is compulsory. Attempt one question from each section. All questions carry equal marks.

1. (a) Differentiate between UNIX and LINUX. 5×4
(b) How to make a shell script interactive ?
(c) Explain AWK utility.
(d) Discuss advantages and disadvantages of various loading schemes.
(e) Describe Absolute and Relative pathnames with example.

Section-A

2. (a) Differentiate between assembler, compiler and interpreter. 8
(b) Discuss the designing of two phase assembler. How its functioning is better than single phase assembler ? 12

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3. (a) What are the functions of a loader ? Explain the design and working of Relocating loader with example. 10
- (b) Discuss the following with applications : 10
- (i) Direct linking loader
 - (ii) Binders
 - (iii) Overlays.

Section-B

4. Define Macro and Macroprocessor. Explain various Macro facilities with example. 20
5. Explain the following terms in reference to UNIX File System : 20
- (a) Inode
 - (b) Blocks
 - (c) Fragments
 - (d) Directory Structure.

Section-C

6. Write down the commands for : 20
- (a) Comparing files

- (b) Printing files
 - (c) Splitting files
 - (d) Looking at file contents.
7. (a) Describe various wild card characters along with their meaning. Justify their need in shell programming. 10
- (b) Explain various methods of changing the file permissions in UNIX with example. 10

Section-D

8. (a) Write a program in C-shell to find whether a string is palindrome or not. 10
- (b) Explain various shell programming constructs by giving suitable example. 10
9. (a) Describe various commands with syntax required for management of File system. 10
- (b) Explain the booting process of Unix in detail. 10