

B.E. 6th Semester (CSE) Examination, May-2010

**SYSTEM PROGRAMMING  
& SYSTEM ADMINISTRATION**

**Paper - IT-303-E**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Attempt any five questions.*

1. (a) Compare and contrast the following terms
- (i) Assembler
  - (ii) Loader
  - (iii) Linker
  - (iv) Compiler
  - (v) Macro
- (b) Discuss various software tools used in system programming.
2. (a) What is assembler? Explain how to design an assembler with detailed flow chart.
- (b) Discuss the following with applications
- (i) Subroutine Linkage
  - (ii) Binder
  - (iii) Overlays

3. What do you mean by Macro? How macros are designed? Discuss the feature of all MACRO facility with applications. 20
4. (a) Write a program in shell scripting to calculate the sum of digits of 6 digits number. 10
- (b) Explain the All special file in Unix. 10
5. (a) What is the command to change the file permission in both ways : owner and group owner? Explain in details. 10
- (b) Which command is used to match a pattern in a file and what are the options supported by it ? 05
- (c) Explain memory management in Unix. 05
6. What is Booting process? How Booting a system takes place? What is the role of system administrator in Booting? How the following features are maintained by SA ?
- (i) User accounts
- (ii) File system
- (iii) Backups 20

7. (a) Explain the purpose of the following commands.

(i) Pwd

(ii) Head

(iii) Chmod

(iv) Passwd

(v) grep

(vi) cP

(vii) LS

(viii) date

(ix) touch

(x) vi 10

(b) Explain the format of database of assembler10

8. Write short notes on the following.

(a) Role of system manager

(b) AWK Utility

(c) Demand paging

(d) Filters and pipelining

20