B.Tech. 6th Semester Computer Science & Engg.

F. Scheme Examination, May–2012

SYSTEM PROGRAMMING AND SYSTEM ADMINISTRATION

Paper - IT-303-F

Time allowed : 3 hours]   *[Maximum marks : 100*

Note : *Question No. **1** is compulsory. Attempt any **five** questions taking at least **one** from each section.*

1. (a) What is the difference between open subroutine and closed subroutine?

    (b) Write the four functions performed by relocating loaders.

    (c) What is core image builder?

    (d) Define relocation bits. What problem they will solve?

    (e) Write a short note on directory structure of Unix.

    (f) Write commands and their syntax to see current directory in Unix.

    (g) Write five commands of Vi editor that are used to edit the text.

    (h) Write a short note on File Statistics.

    (i) What are wild cards? What is their use?

    (j) Define Shell variables.   2×10=20

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Section - A

2. (a) What is a debug monitor? Why it is used? What are its advantages and disadvantages?   10

    (b) Explain reallocating loader scheme in detail.   10

3. (a) Compare and contrast binders, linking loader and overlays.   10

    (b) Explain the two pass assembler in detail.   10

Section - B

4. (a) Explain macro calls within macro by giving suitable example.   10

    (b) Explain CPU scheduling used in Unix.   10

5. (a) What is macro language and macro processor? What are the features of a macro facility? Explain.   10

    (b) How the memory is managed in Unix? Explain with the help of examples.   10

Section - C

6. (a) Compare and contrast absolute and relative pathnames by giving examples of each.   10

(b) Write short notes on :   10

    (i)   AWK utility

    (ii)   Splitting files in Unix

7.   (a)   What do you mean by user names and user groups? How these are created? Explain with the help of examples.   10

    (b)   What do you mean by standard input and output? How it is obtained? Explain with the help of examples.   10

Section - D

8.   (a)   Write a shell program to find the greatest of three numbers.   10

    (b)   How the backup and restoration is performed in Unix environment? Explain in detail.   10

9.   (a)   Explain the various looping constructs used in the shell programming by giving suitable examples.   10

    (b)   Explain the role and function of a system manager in detail.   10