53 (IT 404) SYPR

2016

SYSTEM PROGRAMMING

Paper : IT 404

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. *(a)* Briefly explain the Evolution of the components of a computer programming system. 10

   (b) What is Symbol Table ? Explain how one can organize Symbol Table using Linear Data Structure. 3+7=10

2. *(a)* What is program relocation ? How relocation is performed by Linker ? Explain with an example. 3+7=10

   (b) Define Forward Reference. How can it be solved with Back Patching ? Explain with example. 3+7=10

3. *(a)* What is Interpreter? Explain the benefits of Interpreter. Compare compiler and Interpreter. 2+3+5=10

(b) Explain various optimizing transformations of a compiler by giving suitable examples. 10

4. *(a)* Define two macros of your choice to illustrate nested calls to these macros. Also show their corresponding expansion. 10

(b) What are advanced macro programming facilities? Explain with examples. 10

5. *(a)* Explain with examples use of wild card characters in UNIX. Write the meaning of following UNIX command: 5+5=10

Cd, mkdir, ls, ps, pwd

(b) Explain with examples pipes and filters in UNIX. 10

6. *(a)* Write a shell script to print given number in reverse order, for eg. if number is 123 it must print as 321. 10

(b) Write a shell script to find whether entered number is divisible by 5 or not. 10

7. Write short notes on : 10×2=20

(a) CPU Scheduling

(b) UNIX File Permission.
