



(Pages : 2)

8802

Reg. No. : .....

Name : .....

**Fifth Semester B.Tech. Degree Examination, December 2015  
(2008 Scheme)**

**08.504 : SYSTEMS PROGRAMMING (R F)**

Time : 3 Hours

Max. Marks : 100

**PART – A**

Answer **all** questions. **Each** carries **4** marks.

1. Differentiate between RISC and CISC machines.
2. Explain the register set and addressing modes of SIC architecture.
3. Write a sequence of instruction for SIC/XE to divide BETA by GAMMA setting ALPHA to the integer portion of the quotient and DELTA to the remainder. Use register to register instruction to make the calculation as efficient as possible.
4. What is an assembler directive ? Explain with an example.
5. What are forward references ? How it is handled by an assembler ?
6. What do you mean by program relocation ?
7. Distinguish between linking loader and linkage editor.
8. Explain about absolute loader.
9. Briefly explain about automatic library search.
10. What are keyword macro parameters ? Explain with an example.

**(10×4=40 Marks)**

**PART – B**

Answer **any one full** question from **each** module.

**Module – I**

11. Explain Ultra SPARC architecture.

**20**

OR



12. a) Briefly explain the SIC/XE architecture. 10  
b) Write short notes on Power PC architecture. 10

### Module – II

13. Explain pass 1 and pass 2 algorithms and data structures used in a two pass assembler. 20

OR

14. a) What do you mean by program linking ? Explain program linking with the help of an example. 10  
b) What is meant by dynamic linking ? What are the advantages of dynamic linking ? 10

### Module – III

15. a) Write short notes on the macroprocessing features of MASM. 10  
b) What is a text editor ? Illustrate the structure of a text editor with the help of a block diagram. 10

OR

16. a) What are the major data structures required for the design of macro processor ? Explain with help of an example. 10  
b) What are the desirable features of a debugging system ? 10

(3x20=60 Marks)