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A – 6438

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**Fifth Semester B.Tech. Degree Examination, October 2016
(2008 Scheme)**

08.504 : SYSTEMS PROGRAMMING (RF)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

(10×4=40 Marks)

1. Explain the difference between system software and application software.
2. What are delayed branches ? How it helps instruction execution on a SPARC system ?
3. What are literals ?
4. How a program block is different from a control section ?
5. What is the need for multiple passes in an assembler ?
6. What is dynamic linking ?
7. What are Bootstrap loaders ?
8. Differentiate between keyword and positional macro parameters.
9. Explain recursive macro expansion with an example.
10. Enumerate the functions of a debugger.

PART – B

Answer **one** question from **each** Module.

(3×20=60 Marks)

Module – I

11. a) How system programming is dependent on machine architecture ? **10**
b) Explain VAX architecture. **10**

OR

12. a) Explain Pentium pro architecture. **10**
b) Write a sequence of instruction in SIC/XE to count blank spaces in a given string. **10**

P.T.O.

**Module – II**

13. a) Write short notes on MASM assembler. 10
- b) What are control sections ? How they are handled by assembler ?
Illustrate with an example. 10

OR

14. Explain the pass1 and pass2 algorithm of a linking loader. What are the various data structures used by this algorithm ? 20

Module – III

15. a) Write short notes on ANSI C macroprocessors. 10
- b) Briefly explain machine independent macroprocessor features. 10

OR

16. a) What are macros ? Explain macro definition and expansion with the help of an example. 7
- b) What is the use of concatenating macro parameters ? How this is achieved in macro processors ? 7
- c) Give an overview of editing process. 6