

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 91351

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Fifth Semester

Computer Science and Engineering

CS 2304/CS 54/CS 1304 A/10144 CS 505 — SYSTEM SOFTWARE

(Common to Information Technology)

(Regulation 2008/2010)

(Common to PTCS 2304/10144 CS 505 – System Software for B.E. (Part-Time)
Fourth Semester CSE – Regulation 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the use of TD instruction in SIC architecture?
2. List details of the memory of SIC/XE machine.
3. What are assembler directives? Give examples.
4. What do you mean by forward reference?
5. State the function of a bootstrap loader.
6. List the various record types used in MS-DOS object module.
7. What is the use of macro time variable?
8. Define line by line macroprocessor.
9. Compare manuscript-oriented editors and program-oriented editors.
10. What are the basic types of computing environments used in editor functions?

PART B — (5 × 16 = 80 marks)

11. (a) Describe the SIC machine architecture. (16)

Or

(b) (i) Discuss the registers and data formats used in SIC/XE. (6)

(ii) Explain the various addressing modes used in SIC/XE. (10)

12. (a) Explain the features of machine-independent assembler. (16)

Or

(b) (i) Write an algorithm for pass 1 of assembler. (8)

(ii) Discuss about MASM assembler. (8)

13. (a) Describe the machine dependent loader features. (16)

Or

(b) (i) Explain about linking loader and linkage editor. (10)

(ii) Write an algorithm for an absolute loader. (6)

14. (a) (i) Explain the data structures used by the macro processor. (8)

(ii) Discuss about the keyword macro parameters. (8)

Or

(b) Explain the macro processor design options. (16)

15. (a) With neat block diagram, explain the different components of an editor structure. (16)

Or

(b) Explain in detail the interactive debugging systems. (16)