

M 2034

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2006.

Third Semester

Computer Science and Engineering

CS 1203 — SYSTEM SOFTWARE

(Common to Information Technology)

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the purpose of test device instruction?
2. How is a floating point value represented using exponent in SIC?
3. What is the need for an assembler directive?
4. What is the use of LOCCTR (Location Counter)?
5. What is function of MS-DOS LINK?
6. What is the function of a linkage editor?
7. What is the necessity of a Macro?
8. How do macros affect program development?
9. What is the importance of user interface?
10. What are various functions of a debugger?

PART B — (5 × 16 = 80 marks)

11. (i) Explain any two system software tools highlighting their advantages and disadvantages.
(ii) What are the various criteria of user interface?

14) using
(8)

using 2's
(8)

(16)

adders, to
(8)

it binary
= B and
first two
(8)

er. Also
(16)

unctions
ent the
t terms
(16)

sequence
(16)

(8)

nter to
(8)

rcuits.
(16)

ential
ternal
(10)

(6)

2033

12. (a) With a neat diagram, explain the machine architecture of SIC and SIC/XE.

Or

- (b) Write short notes on :
- (i) Data and Instruction formats
 - (ii) Addressing modes of SIC/XE.

13. (a) (i) Explain the necessity of one pass and multi pass assemblers.
(ii) Explain about implementation of one pass assembler.

Or

- (b) Explain the various machine dependent features of assembler.

14. (a) Discuss the basic loader functions and design relocatable loader.

Or

- (b) Explain in detail how linkage editors are implemented in various machines. Differentiate linkage editors with linkage loaders.

15. (a) Explain the various machine independent macro processor features, in detail.

Or

- (b) Discuss the various design options of a MASM macro processor.
-