4E2017

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B. Tech. IV Semester (Re Back) Examination -2012
Computer Science
4CS4 System Software Engineering

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five questions** selecting **one question** from **each unit**. All questions carry **equal marks**. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).*

Unit - I

1. a) Explain different types of instruction formats. (8)
   b) Explain various type of addressing modes with suitable example. (8)

OR

1. a) Describe date allocation structure and data search structure. (12)
   b) What is SIC machine? Differentiate SIC and SIC - XE machine. (4)

Unit - II

2. a) Apply pass-1 and pass-2 algorithm of assembler on following source program of SIC machine.

SUM	START	4000
FIRST	LDX	ZERO
	LDA	ZERO
LOOP	ADD	TABLE,X
	TIX	COUNT
	JLT	LOOP
	STA	TOTAL
	RSUB	
TABLE	RESW	2000
COUNT	RESW	1
ZERO	WORD	0
TOTAL	RESW	1
	END	FIRST

(12)