



Set A

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

I SESSIONAL TEST QUESTION PAPER 2020 – 21 EVEN SEMESTER

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Degree : B.E
Branch : Computer Science & Engineering
Course Title : System Software & Compilers
Duration : 90 Minutes

Semester: VI
Course Code: 18CS61
Date : 24-5-21
Max Marks : 30

Note: Answer ONE full question from each part.

Q No.	Question	Marks	CO mapping	K-Level
PART-A				
1(a)	Determine the Pass1 algorithms of 2 pass assembler	6	CO1	Applying
(b)	Obtain SIC/XE Machine Architecture	6	CO1	Applying
(c)	Construct the complete object program for the source program <pre> SUM START 0 FIRST LDX #0 LDA #0 +LDB #TABLE2 BASE TABLE2 LOOP ADD TABLE,X ADD TABLE2,X TIX COUNT JLT LOOP +STA TOTAL RSUB COUNT RESW 1 TABLE RESW 2000 TABLE2 RESW 2000 TOTAL RESW 1 END FIRST Opcodes: ADD 18 JLT 38 LDA 00 LDB 68 LDX 04 RSUB 4C </pre>	6	CO1	Applying
OR				
2(a)	Identify the working of Bootstrap Loader also write the algorithms	6	CO1	Applying
(b)	Obtain the different addressing modes and Instruction formats of SIC/XE with examples	6	CO1	Applying
(c)	Construct the complete object program for the source program <div style="display: flex; justify-content: space-between;"> SIMPLE START 1000 </div>	6	CO1	Applying

	FIRST	LDA	FIVE			
		STA	ALPHA			
		LDX	ZERO			
	MOVECH	LDCH	STR1,X			
		STCH	STR2,X			
		TIX	ELEVEN			
		JLT	MOVECH			
	STR1	BYTE	C' TEST STRING			
	STR2	RESB	11			
	FIVE	WORD	5			
	ZERO	WORD	0			
	ELEVEN	WORD	11			
	ALPHA	RESW	1			
		End				
	OPCODES					
	LDA- 00					
	STA-0C					
LDX-04						
LDCH-50						
STCH-54						
TIX-2C						
JLT38						
PART-B						
3(a)	Identify the translation in different phases of a compiler with an example			6	CO2	Applying
(b)	Determine the role of sentinels in input buffering along with the look ahead code.			6	CO2	Applying
OR						
4(a)	Determine the working of a buffer pair in input buffering and its drawbacks			6	CO2	Applying
(b)	Define Token, Pattern and Lexeme with examples			6	CO2	Applying

Semester	Section	Name of the faculty	Email Address
6 th	A & B	Deepa .S.R	deepasr@ksit.edu.in