

CS 303 SYSTEM SOFTWARE

I	Introduction : System Software Vs. Application Software, Different System Software– Assembler, Linker, Loader, Macro Processor, Text Editor,	2	15%
	Debugger, Device Driver, Compiler, Interpreter, Operating System(Basic Concepts only) SIC & SIC/XE Architecture, Addressing modes, SIC & SIC/XE Instruction set, Assembler Directives and Programming.	6	
II	Assemblers Basic Functions of Assembler. Assembler output format – Header, Text and End Records- Assembler data structures, Two pass assembler algorithm, Hand assembly of SIC/XE program, Machine dependent assembler features.	6	15 %
FIRST INTERNAL EXAM			
III	Assembler design options: Machine Independent assembler features – program blocks, Control sections, Assembler design options- Algorithm for Single Pass assembler, Multi pass assembler, Implementation example of MASM Assembler	7	15 %
IV	Linker and Loader Basic Loader functions - Design of absolute loader, Simple bootstrap Loader, Machine dependent loader features- Relocation, Program Linking, Algorithm and data structures of two pass Linking Loader, Machine dependent loader features, Loader Design Options.	7	15 %
SECOND INTERNAL EXAM			
V	Macro Preprocessor:- Macro Instruction Definition and Expansion. One pass Macro processor Algorithm and data structures, Machine Independent Macro Processor Features, Macro processor design options	7	20 %
VI	Device drivers: Anatomy of a device driver, Character and block device drivers, General design of device drivers	2	20 %
	Text Editors: Overview of Editing, User Interface, Editor Structure.	2	
	Debuggers :- Debugging Functions and Capabilities, Relationship with other parts of the system, Debugging Methods- By Induction, Deduction and Backtracking.	4	
END SEMESTER EXAM			

Jyoths Academy, Kottayam & Kochi
 Providing tuition for all B.tech Subjects
 Online/Offline: Call 8281881122
www.jyothisacademy.com