SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc –(CA & IT) Semester: I
Syllabus with Effect from: June-2019

Paper Code: PS01CIIT31	Total Credit: 4
Title Of Paper: System Software	

Unit	Description in Detail	Weightage (%)
I	**Language Processors and Compilers** Introduction to language processing Language processing activities: program generation, program execution, program interpretation Meaning of analysis and synthesis in language processing Introduction to compilers The analysis-synthesis model of compilation The phases of a compiler	25%
II	**Fundamentals of Assembly Language and Assemblers** Elements of assembly language programming Description of a simple assembly language Description of different types of assembly language statements : imperative statements, declaration statements, assembler directives Advantages of assembly language A simple assembly scheme : design specification of assemblers, phases and data structures Design of a two pass assembler	25%
III	**Editors, Linkers and Loaders** Editors : line editors, stream editors, screen editors, word processors, structure editors, design of editors Translated, linked and load time addresses Relocation and linking concepts : program relocation, performing relocation The process of linking The concept of loading	25%
IV	**System Software Tools** List of software tools for program development and their description Debug monitors Producing debug information Programming environments User interface tools	25%

Basic Text & Reference Books:-

➢ Dhamdhare, D M : "System programming and Operating system", 2nd revised edition, Tata McGraw-Hill Company Limited, 2004.

➢ Aho A. V., Sethi R., Ullman J. D. : Compilers - Principles, Techniques and Tools, Addition-Wesley Publishing Company, 1988.