



Kannada Sangha Pune's
Kaveri College of Arts, Science and Commerce, Pune

BBA(CA)

Name of the Course: Digital Computer Architecture and Operations

Eligibility: 12th Pass

Duration: 36 hours

Fees: will be announced before starting the course.

Number of students: 60

Objectives of the Course:

1. To study the basic structure and operations of a digital computer.
2. To study fundamentals of Theoretical Computer Science.
3. To understand computer assembly and operating system installation.

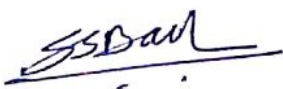
Syllabus:

Sr. No	Topics	No. of Lectures
Unit 1	Number Systems Introduction to Binary, Octal, Hexadecimal system Conversion Simple Addition, Subtraction, 1's complement and 2's complement.	8
Unit 2	Logic Circuits: AND,OR,NAND,NOR,EXCLUSIVE OR and NOR Truth Table Gated Flip Flops	3
Unit 3	Boolean Algebra : Algebra Rules and DeMorgans Rules. Simplification of equations.	3
	Circuit design using state table/K-map: K-Map using POS and SOP methods.	8

Unit 4	Circuit design using state table/K-map: K-Map using POS and SOP methods. Design of Full adder, full subtractor.	8
Unit 5.	Theoretical Computer Science Introduction: Symbol, Alphabet, String, Prefix & Suffix of Strings, Formal Language, Operations on Languages. Regular Expressions (RE) : Definition & Example Regular Expressions Identities.	4
Unit 6.	Finite Automata: Deterministic finite Automaton – Definition, DFA as language recognizer, DFA as a pattern recognizer. Nondeterministic finite automaton – Definition and Examples.	4
Unit 7	Demo: OS Installation and Components of computer.	6

Course Outcomes:

1. Students acquire basic knowledge about computer system architecture, arithmetic and digital circuits.
2. Students will learn fundamental of Theoretical Computer Science.
3. Students get knowledge of computer assembly and operating system installation



Mrs. Sujata Bachhav
Course Coordinator, BBA(CA)



Principal