

Course Name:

Intro to Computer Science

CHAPTER 1: Computer Fundamentals

CONTENT:

- Types of Computers
- Main Structural Units of Computers
- The Functionalities of Each Unit

QUIZ:

- Topic 2 & 3

LEARNING OBJECTIVES:

- The student will be introduced to the computers
- The student will know the principal structural units of the computer
- The student will know the functionalities of those components

CHAPTER 2: Numerical Systems

CONTENT:

- Decimal System
- Binary System
- Octal System
- Hexadecimal System

QUIZ:

- Topics 1-4

LEARNING OBJECTIVES:

- The student will be introduced to the digital systems present for maintaining data

CHAPTER 3: Numerical System Arithmetics

CONTENT:

- System Conversions
- Addition, Subtraction
- Multiplication, Division

QUIZ:

- Topics 1-3

LEARNING OBJECTIVES:

- The student will learn the necessary tools to understand and manipulate the different type of digital information

CHAPTER 4: Boolean Algebra

CONTENT:

- Rules in Boolean Algebra
- Boolean Laws

QUIZ:

- Topics 1-2

LEARNING OBJECTIVES:

- The student will gain the necessary knowledge to understand boolean operations in programming

CHAPTER 5: Logic Gates

CONTENT:

- AND Gate
- OR Gate
- NOT Gate
- NAND Gate
- NOR Gate
- XOR Gate
- XNOR Gate

QUIZ:

- Topics 1-7

LEARNING OBJECTIVES:

- The student will get acquainted with logic gates which are the bricks of any electronic device

PRACTICAL SECTION: Building a Half-Adder scheme