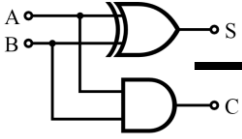




Unit 8: Boolean Algebra



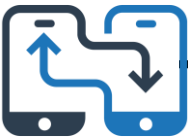
1. Boolean Logic
2. Karnaugh Maps
3. Simplifying Statements
4. Logic Gate Diagrams
5. D Type Flip Flops
6. Half and Full Adders

Unit 6: Data Types



1. Primitive Data Types
2. Binary, Denary & Hexadecimal
3. Binary Arithmetic
4. Floating Point Normalisation
5. Floating Point Arithmetic
6. Bitwise Manipulation & Masks
7. Character Sets

Unit 4: Exchanging Data



1. Compression, Encryption & Hashing
2. Databases
3. Normalisation
4. SQL
5. Referential Integrity
6. Transaction Processing

Unit 2: Systems Software



1. Operating Systems
2. Memory Management
3. Interrupt Service Routine
4. Scheduling Algorithms
5. Types of OS
6. BIOS, Drivers, Virtual Machines
7. Utility Software
8. Translators
9. Stages of Compilation
10. Libraries, Linkers & Loaders

Unit 7: Data Structures



1. Arrays, Records, Lists, Tuples
2. Linked-lists
3. Graphs
4. Stacks & Queues
5. Trees
6. Hash Tables

Unit 5: Networks



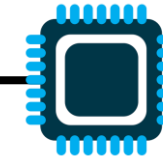
1. Networks, Protocols & Standards
2. Structure of the Internet
3. Network Security & Threats
4. Network Hardware
5. Client-server & P2P Networks
6. HTML, CSS & JavaScript
7. Search Engine Indexing
8. PageRank Algorithm

Unit 3: Software Development



1. Software Development Methodologies
2. Writing and Following Algorithms
3. Programming Paradigms
4. Procedural, Assembly & OOP Languages
5. Modes of Addressing

Unit 1: Components of a Computer



1. Structure of the CPU
2. LMC
3. CPU Performance
4. Processor Architecture
5. CISC & RISC Processors
6. Types of Processors
7. Input, Output & Storage
8. Memory

Unit 9: Impacts of Technology



1. Computing Legislation
2. Moral and Ethical Issues

COMP 3 NEA PROJECT



Analysis Stage



Design Stage



Development Stage



Evaluation Stage



SUBMIT

Project Final Submission [20%]



Paper 1 Final Exam [40%]

PAPER
2

Unit 10: Computational Thinking



1. Thinking Abstractly
2. Thinking Ahead
3. Thinking Procedurally
4. Thinking Logically
5. Thinking Concurrently

Unit 12: Computational Methods



1. Backtracking
2. Data Mining
3. Heuristics
4. Performance Modelling
5. Visualisation
6. Pipelining

Unit 14: Implementing Data Structures



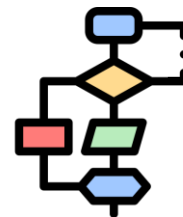
1. Stacks
2. Queues
3. Linked Lists
4. Trees
5. Tree Traversal

Unit 11: Programming Techniques



- Module 1 | Programming Constructs
- Module 2 | Advanced Techniques
- Module 3 | OOP
- Module 4 | PyGame

Unit 13: Standard Algorithms

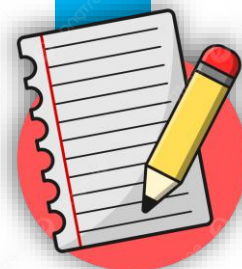


1. Big O Notation
2. Searching Algorithms
3. Sorting Algorithms

Unit 15: Pathfinding Algorithms



1. Dijkstra's Algorithm
2. A* Algorithm

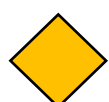


Paper 2 Final Exam [40%]

PAPER
1



Teacher 1
Pathway



Teacher 2
Pathway