

Name of the Assistant Professor: Vinti Parmar

Class: B.Sc (Computer Science) 4th Sem.

Subject: Data Structure

Week		Topics
1	Day 1	Basic Concepts of Data Structures
	Day 2	Data Structure Operations
	Day 3	Application of Data Structure
2	Day 1	Types of Data Structures
	Day 2	Test
	Day 3	Algorithm Concepts
3	Day 1	String concepts
	Day 2	Pattern Matching Algorithm
	Day 3	Arrays
4	Day 1	Types of Array
	Day 2	Doubt Class
	Day 3	Test
5	Day 1	Linked List
	Day 2	Operations on Linked List
	Day 3	Circular Linked List
6	Day 1	Two Way Linked List
	Day 2	Application of linked list
	Day 3	Stacks
7	Day 1	Operations on Stack
	Day 2	Application of Stacks
	Day 3	Reverse Polish Notation
8	Day 1	Recursion
	Day 2	Basic concepts of Queues
	Day 3	Doubt Class
9	Day 1	Test
	Day 2	Array Representation of Stack
	Day 3	Linked representation of stack
10	Day 1	Operations on Queues
	Day 2	Deque
	Day 3	Priority Queues
11	Day 1	Application of queues
	Day 2	Trees Basics
	Day 3	Traversing Binary trees
12	Day 1	Various types of Binary Trees
	Day 2	Graph Basics
	Day 3	Graph Theory Terminology
13	Day 1	Sequential Representation of Graph
	Day 2	Linked Representation of Graph
	Day 3	Types of Searching
14	Day 1	Types of Sorting
	Day 2	Introduction to Files
	Day 3	Storage Devices
15	Day 1	Revision and doubt Class
	Day 2	Revision and doubt Class
	Day 3	Revision and doubt Class

Lesson Plan (March –June) 2022

Name of the Assistant Professor: Vinti Parmar

Class and Section: B.Sc. 2nd Semester

Subject: System analysis of design

Week	Date	Topics
1	DAY 1 DAY 2 DAY 3	Introduction to system, Definition and characteristics of a system, Elements of system, Types of system, System development life cycle, Role of system analyst
2	DAY 1 DAY 2 DAY 3	Analyst/user interface, System planning and initial investigation: Introduction, Bases for planning in system analysis, Sources of project requests, Initial investigation
3	DAY 1 DAY 2 DAY 3	Fact finding, Information gathering, information gathering tools.
4	DAY 1 DAY 2 DAY 3	Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts, decision tree, decision table, structured English, Pros and cons of each tool, Feasibility study:
5	DAY 1 DAY 2 DAY 3	Zonhe Plate, diffraction at a straight edge
6	DAY 1 DAY 2 DAY 3	Introduction, Objective, Types, Steps in feasibility analysis, Feasibility report, Oral presentation
7	DAY 1 DAY 2 DAY 3	Cost and benefit analysis: Identification of costs and benefits, classification of costs and benefits
8	DAY 1 DAY 2 DAY 3	Methods of determining costs and benefits, Interpret results of analysis and take final action.
9	DAY 1 DAY 2 DAY 3	System Design: System design objective, Logical and physical design, Design Methodologies, structured design. Class test
10	DAY 1 DAY 2 DAY 3	Form-Driven methodology (IPO charts), structured walkthrough, Input/Output and form design: Input design, Objectives of input design,
11	DAY 1 DAY 2 DAY 3	Output design, Objectives of output design, Form design, Classification of form, requirements of form design
12	DAY 1 DAY 2 DAY 3	Types of forms, Layout considerations, Form control. class test
13	DAY 1 DAY 2 DAY 3	System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of system tests, Quality assurance goals in system life cycle,
14	DAY 1 DAY 2 DAY 3	System implementation, Process of implementation, System evaluation,
15	DAY 1 DAY 2 DAY 3	System maintenance and its types, System documentation, Forms of documentation.

Lesson Plan (March –June) 2022

Name of the Assistant Professor: **Vinti Parmar**

Class and Section: **B.Sc. 6th Semester**

Subject: **Visual Basic**

Week	Date	Topics
1	DAY 1 DAY 2 DAY 3	Introduction to VB; Visual & Non-visual programming, Procedural, Object-oriented and event-driven programming languages.
2	DAY 1 DAY 2 DAY 3	The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window
3	DAY 1 DAY 2 DAY 3	Form designer, Form layout, Immediate window, Event driven programming.
4	DAY 1 DAY 2 DAY 3	Revision of unit 1 and Test
5	DAY 1 DAY 2 DAY 3	Basics of Programming: Variables: Declaration, Types of variables, Converting variables types, User defined data types
6	DAY 1 DAY 2 DAY 3	Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators.
7	DAY 1 DAY 2 DAY 3	O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement requests
8	DAY 1 DAY 2 DAY 3	Revision of unit 2
9	DAY 1 DAY 2 DAY 3	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Looping Statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures.
10	DAY 1 DAY 2 DAY 3	Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array.
11	DAY 1 DAY 2 DAY 3	Revision of unit 3 and Test
12	DAY 1 DAY 2 DAY 3	Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures
13	DAY 1 DAY 2 DAY 3	Arguments- passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types. Working with forms: Adding multiple forms in VB, Hiding & showing
14	DAY 1 DAY 2 DAY 3	forms, Load & unload statements, Activate & deactivate events, Form-load event, menu designing in VB,
15	DAY 1 DAY 2 DAY 3	Database Programming using DAO & ADO, Simple Active X controls.