

LESSON PLAN

JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA	
Name of the Faculty: Sabyasachi Sarangi	Academic Year: 2022-23
Course No.: Th 2 (Data Structures)	Course name: INFORMATION TECHNOLOGY
Programme: Diploma	Branch: I.T.
Year/Sem: 3RD	Section: NA

Sl. No.	Period	Time (min)	Unit	Topic to be Covered	Teaching Method
1	1	55 min	1	Explain Data, Information, data types Define data structure & Explain different operations	Black board
2	2	55min	1	Explain Abstract data types Discuss Algorithm & its complexity Explain Time, space tradeoff	Black board
3	3	55min	3	Give Introduction about array Discuss Linear arrays, representation of linear array In memory	Black board
4	4	55min	3	Explain traversing linear arrays, inserting & deleting elements	Black board
5	5	55min	3	Explain traversing linear arrays, inserting & deleting elements	PPT
6	6	55min	3	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order),	PPT
7	7	55min	3	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order),	PPT
8	8	55min	3	sparse matrices.	Black board
9	9	55min	3	Pointer	Black board
10	10	55min	3	Explain Basic Terminology, Storing Strings	Black board

				State Character Data Type,	
11	11	55min	3	Discuss String Operations	Black board
12	12	55 min	3	Give fundamental idea about Stacks and queues	Black board
13	13	55 min	4	Explain array representation of Stack	Black board
14	14	55min	4	Explain array representation of Queue	Black board
15	15	55 min	4	Explain arithmetic expression ,polish notation & Conversion	PPT
16	16	55 min	4	Explain arithmetic expression ,polish notation & Conversion	Black board
17	17	55min	4	Discuss queues, circular queue, priority queues.	Black board
18	18	55min	4	Discuss queues, circular queue, priority queues.	Black board
19	19	55 min	4	Quiz test	PPT
20	20	55 min	5	Give Introduction about linked list	Black board
21	21	55 min	5	Explain representation of linked list in memory	Black board
22	22	55 min	5	Explain representation of linked list in memory	Black board
23	23	55min	5	Discuss traversing a linked list, searching,	Black board
24	24	55min	5	Discuss garbage collection.	Black board
25	25	55 min	5	Explain Insertion into a linked list, Deletion from a linked list, header linked list	Black board
26	26	55 min	5	Explain Insertion into a linked list, Deletion from a linked list, header linked list	Black board
27	27	55 min	5	Explain Insertion into a linked list, Deletion from a linked list, header linked list	Black board
28	28	55 min	5	Quiz	PPT
29	29	55 min	6	Explain Basic terminology of Tree	Black board
30	30	55 min	6	Discuss Binary tree, its representation and traversal, binary search tree, searching,	Projector
31	31	55 min	6	Discuss Binary tree, its representation and traversal, binary search tree, searching,	Projector
32	32	55 min	6	Explain insertion & deletion in a binary search trees	PPT
32	32	55 min	6	Explain insertion & deletion in a binary search trees	Black board

33	33	55 min	6	Quiz	Projector
34	34	55 min	7	Explain graph terminology & its representation,	Projector
35	35	55 min	7	Explain graph terminology & its representation,	Black board
36	36	55 min	7	Explain Adjacency Matrix, Path Matrix	Black board
37	37	55 min	7	Quiz	Black board
38	38	55 min	8	Discuss Algorithms for Bubble sort, Quick sort,	Black board
39	39	55 min	8	Merging	Black board
40	40	55 min	8	Merging	Black board
41	41	55 min	8	Linear searching, Binary searching.	Black board
42	42		8	Quiz	
43	43	55 min	9	Discuss Different types of files organization and their access method,	Black board
44	44	55 min	9	Discuss Different types of files organization and their access method,	Black board
45	45	55 min	9	Introduction to Hashing, Hash function, collision resolution, open addressing.	Black board
46	46	55 min	9	Quiz	Black board
47	47	55 min	6	Quiz	Black board
48	48	55 min	6	Chapter1 Revision	Black board
49	49	55 min	6	Chapter2 Revision	Black board
50	50	55 min	6	Chapter3 Revision	Black board
51	51	55 min	6	Chapter4 Revision	PPT
52	52	55 min	6	Chapter5 Revision	PPT
55	55	55 min	6	Chapter6 Revision	Black board
56	56	55 min	6	Chapter7 Revision	Black board
57	57	55 min	6	Chapter8 Revision	Black board
58	58	55 min	6	Chapter9 Revision	PPT
59	59	55 min	6	Revision of all topics	Black board
60	60	55 min	6	Revision of all topics	Black board

JES, JHARSUGUDA

Lesson Plan

Name	MRS. BARSHARANI PATEL	Academic Year 2022- 2023
Subject: Code/Name	Th.5	ENVIRONMENTAL STUDIES
Semester/Program/ Department	3rd SEMESTER/ Diploma/ Information Technology	
Course Objective	After completion of the course, the student will be able to: <ul style="list-style-type: none">• Gather adequate knowledge of different pollutants, their sources and shall be aware of solid waste management systems and hazardous waste and their effects.• Develop awareness towards preservation of environment.	

JES, JHARSUGUDA

Sl. no.	Period / Class	Time (min)	Unit	Detail Description of Topics/Subject	Mode of Lecture	References (Text Book and reference book Page No__to__)
1	1	55	1	Chapter1: The Multidisciplinary nature of environmental studies	Chalk & talk	TB1: 1 to 12
2	2	55	1	Definition, scope and importance	Chalk & talk	TB1: 1 to 4
3	3	55	1	Need to public awareness	Chalk & talk	TB1: 7
4	4	55	1	Revision of Chapter 1	Questionaries'	
5	5	55	2	Chapter2:Natural resources, Renewable and non-renewable resources	Chalk & talk	RB2: 7pg-8-to 69
6	6	55	2	Natural resources and associated problems.	Chalk & talk	RB2: pg 9
7	7	55	2	Forest Resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, Dams and there effects on forests and tribal people.	Chalk & talk	TB1:23 to 26
8	8	55	2	Water Resources: Use and over-utilization of surface and ground water floods, drought, conflicts over water, dam's benefits and problems	Chalk & talk	TB1: 26 to 30
9	9	55	2	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources	Chalk & talk	TB1: 31 to 33
10	10	55	2	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers-pesticides problems, water-logging, sanitary.	Chalk & talk	TB1: 34 to 36
11	11	55	2	Energy Resources: Growing energy need, renewable and non-renewable energy sources, case studies.	Chalk & talk	TB1: 37 to 47
12	12	55	2	Land Resources: land as a resource, land degradation, man incudes landslides, soil erosion, and desertification.	Chalk & talk	TB1- 50 to 51
13	13	55	2	Role of individual in conservation of natural resources	Chalk & talk	TB1 : 51to 52
14	14	55	2	Equitable use of resources for sustainable life styles	Chalk & talk	TB1 : 52to 53
15	15	55	2	Revision of Chapter 2	Questionaries'	

JES, JHARSUGUDA

16	16	55	3	Chapter3:SYSTEMS	Chalk & talk	TB1: 54 to 83
17	17	55	3	Concept of an eco-system	Chalk & talk	TB1:54 to 55
18	18	55	3	Structure and function of an eco-system	Chalk & talk	TB1: 55 to57
19	19	55	3	Producers, consumers, decomposers	Chalk & talk	TB1: 57-58
20	20	55	3	Energy flow in the eco systems	Chalk & talk	TB 1: 58-65
21	21	55	3	Ecological succession	Chalk & talk	TB1:65
22	22	55	3	Food chains, food web and ecological pyramids	Chalk & talk	TB1: 65 to 67
23	23	55	3	Introduction, types, characteristic features ,structure and function of the following eco system	Chalk & talk	TB1:68
24	24	55	3	Forest ecosystem	Chalk & talk	TB1: 69 to 74
25	25	55	3	Aquatic eco systems(ponds, stream, lakes ,rivers, oceans, estuaries)	Chalk & talk	TB1 : 79 to 82
26	26	55	3	Revision of Chapter-3	Questionaries'	
27	27	55	4	Chapter4:Biodiversity and it's conservation	PPT	TB1:85-98
28	28	55	4	Introduction- Definition: genetics, species and ecosystem diversity	Chalk & talk	TB1: 85 to 87
29	29	55	4	Biogeographically classification of India	Chalk & talk	TB1 : 87 to 89
30	30	55	4	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optic values	Chalk & talk	TB1 : 89 to 92
31	31	55	4	Biodiversity at global, national and local level	Chalk & talk	TB1: 92to 93
32	32	55	4	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts	Chalk & talk	TB1: 96 to 98
33	33	55	4	Revision of Chapter-4	Questionaries'	
34	34	55	5	Chapter5: Environmental pollution	Chalk & talk	TB1: 118 to173
35	35	55	5	Definition causes, effects and control measures of:	Chalk & talk	TB1: 118 to 119
36	36	55	5	Air pollution	Chalk & talk	TB1:119 to 130
37	37	55	5	Water pollution	Chalk & talk	TB1: 130 to 136
38	38	55	5	Soil pollution	Chalk & talk	TB1:136 to 138

JES, JHARSUGUDA

39	39	55	5	Marine pollution	Chalk & talk	TB1:142 to 146
40	40	55	5	Noise pollution	Chalk & talk	TB1: 147 to 149
41	41	55	5	Thermal pollution	Chalk & talk	TB1: 149 to 150
42	42	55	5	Nuclear pollution	Chalk & talk	TB1: 150 to 152
43	43	55	5	Solid waste management: Causes, effects and control measures of urban and industrial wastes	Chalk & talk	TB1: 152 to 160
44	44	55	5	Role of an individual in prevention of pollution	Chalk & talk	TB1: 160 to 164
45	45	55	5	Disaster management: Floods ,earthquake, cyclone and landslides	Chalk & talk	TB1: 164 to 173
46	46	55	5	Revision of Chapter-5	Questionaries'	
47	47	55	6	CHAPTER 6; Social issues and the Environment	Chalk & talk	TB1: 175 to 213
48	48	55	6	Form unsustainable to sustainable development	Chalk & talk	TB1: 175 to 176
49	49	55	6	Urban problems related to energy	Chalk & talk	TB1:177
50	50	55	6	Water conservation, rain water harvesting, watershed management	Chalk & talk	TB1:178 to181
51	51	55	6	Resettlement and rehabilitation of people; its problems and concerns	Chalk & talk	TB1:181
52	52	55	6	Environmental ethics: issue and possible solutions	Chalk & talk	TB1:182 to 188
53	53	55	6	Climate change, global warming, acid rain, ozone layer, depletion, nuclear accidents and holocaust, case studies	Chalk & talk	TB1:189 to 195
54	54	55	6	Air (prevention and control of pollution) Act.	Chalk & talk	TB1:201 to 204
55	55	55	6	Water (prevention and control of pollution) Act.	Chalk & talk	TB1:204 to 205
56	56	55	6	Public awareness	Chalk & talk	TB1: 211 to 213
57	57	55	6	Revision of Chapter-6	Questionaries'	
58	58	55	7	CHAPTER 7 : Human population and the environment	Chalk & talk	TB1: 220- 246
59	59	55	7	Population growth and variation among nations	Chalk & talk	TB1:220-222
60	60	55	7	Population explosion-family welfare program	Chalk & talk	TB1:222-226
61	61	55	7	Environment and human health	Chalk & talk	TB1:226-236
62	62	55	7	Human rights	Chalk & talk	TB1:236-245
63	63	55	7	Value education	Chalk & talk	TB1:236-245
64	64	55	7	Role of information technology in environment and human health	Chalk & talk	TB1:246

JES, JHARSUGUDA

65	65	55	7	Problems and revision	Chalk & talk	
				Text Book- 1 (TB1): Text book of environmental studies, Erach Bharucha , # UGC . Reference Book 1 (RB1): Fundamentals concept of Environmental studies. D.D Mishra, S. Chand & co Ltd		

LESSON PLAN	
JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA	
Name of the Faculty: Sunil Pal	Academic Year: 2022-23
Course No.: Th. 3	Course Name: DIGITAL ELECTRONICS
Programme: Diploma	Branch: IT
Year/Sem: II / III	Section: NA

Sl. No.	Period	Time (min)	Unit	Topic to be Covered	Teaching Method
1.	1.	55	1	Introduction to Digital Electronics	Chalk & Board
2.	2.	55	1	Introduction to various number systems and conversion from one system to another number system	Chalk & Board
3.	3.	55	1	Arithmetic operations of Binary numbers, 1's & 2's compliment form and subtraction using compliment method	Chalk & Board
4.	4.	55	1	Weighted & non-weighted codes- Binary, excess-3 and Gray	Chalk & Board
5.	5.	55	1	Logic Gates – symbol, function, truth table & timing diagram	Chalk & Board
6.	6.	55	1	Concept of Universal gates and realization of various gates using NAND gate	Chalk & Board
7.	7.	55	1	Realization of various gates using NOR gate	Chalk & Board
8.	8.	55	1	Boolean algebra, Boolean expression	Chalk & Board
9.	9.	55	1	Various Boolean laws and De-Morgan's Theorem	Chalk & Board
10	10.	55	1	SOP and POS representation of Logic Expressions	Chalk & Board
11	11.	55	1	Karnough Map and related Numerical	Chalk & Board
12	12.	55	1	Revision of Unit – 1 and solving numerical from the chapter	Chalk & Board
13	13.	55	2	Introduction to various Combinational logic circuits	Chalk & Board
14	14.	55	2	Adder- half adder and Full Adder	Chalk & Board
15	15.	55	2	Subtractor – Half and Full Subtractor	Chalk & Board
16	16.	55	2	Serial and Parallel Binary 4-bit adder	Chalk & Board
17	17.	55	2	Multiplexer(4:1)	Chalk & Board
18	18.	55	2	De-multiplexer (1:4)	Chalk & Board
19	19.	55	2	Encoder	Chalk & Board
20	20.	55	2	Priority encoder	Chalk & Board
21	21.	55	2	3-bit Comparator	Chalk & Board
22	22.	55	2	Seven segment Decoder	Chalk & Board
23	23.	55	2	Revision of Unit – 2	Chalk & Board
24	24.	55	3	Differentiation between Combinational & Sequential Logic circuit	Chalk & Board
25	25.	55	3	Principle of Latch and Flip-flop and its operation	Chalk & Board

26	26.	55	3	Types of Flip-flop – SR, JK, D, T	Chalk & Board
27	27.	55	3	SR Flip-flop using NAND & NOR latch(unclocked)	Chalk & Board
28	28.	55	3	Clocked SR flip flop	Chalk & Board
29	29.	55	3	Clocked JK, D and T flip-flop	Chalk & Board
30	30.	55	3	Circuit diagram, Truth table and logical expression of SR and JK flip-flop	Chalk & Board
31	31.	55	3	Circuit diagram, Truth table and logical expression of D and T flip-flop	Chalk & Board
32	32.	55	3	Concept of Race Around Condition and idea of Master Slave Flip-flop	Chalk & Board
33	33.	55	3	Operation of Master- Slave JK flip-flop	Chalk & Board
34	34.	55	3	Advantages and Disadvantages of Master- Slave JK flip-flop	Chalk & Board
35	35.	55	3	Revision of Unit – 3	Chalk & Board
36	36.	55	4	Shift registers- SISO, SIPO, PISO, PIPO	Chalk & Board
37	37.	55	4	Operations of shift registers	Audio –Visual using Smart Class
38	38.	55	4	Applications of Shift registers	Chalk & Board
39	39.	55	4	Counters and its types and operation of Binary counter, Asynchronous ripple counter	Chalk & Board
40	40.	55	4	Operation of Decade counter, Synchronous counter and Ring counter	Chalk & Board
41	41.	55	4	Concept of memories- RAM, ROM, SRAM, DRAM & PS RAM	Chalk & Board
42	42.	55	4	Concept of PLD and its applications	Chalk & Board
43	43.	55	4	Revision of unit – 4	Chalk & Board
44	44.	55	5	Introduction to A/D & D/A convertors and its need	Chalk & Board
45	45.	55	5	D/A conversion using weighted resistors methods	Chalk & Board
46	46.	55	5	D/A conversion using R-2R ladder network	Chalk & Board
47	47.	55	5	A/D conversion using counter method	Chalk & Board
48	48.	55	5	A/D conversion using Successive approximate method	Chalk & Board
49	49.	55	5	Revision of unit – 5	Chalk & Board
50	50.	55	6	Concept of Integrated circuit and its need in present.	Chalk & Board
51	51.	55	6	IC Fabrication process	Audio –Visual using Smart Class
52	52.	55	6	Description of various steps involved in IC Fabrication process	Audio –Visual using Smart Class
53	53.	55	6	Digital ICs and its characteristics- propagation Delay , Fan-in, fan-out, power dissipation	Chalk & Board
54	54.	55	6	Explaining terms like Noise margin, Power supply requirement and Speed with reference to logic Families	Chalk & Board

55	55.	55	6	Features, Circuit operation & applications of TTL(NAND) logic circuit	Chalk & Board
56	56.	55	6	Features, Circuit operation & applications of CMOS logic circuit using NAND gate	Chalk & Board
57	57.	55	6	Features, Circuit operation & applications of CMOS logic circuit using NOR gate	Chalk & Board
58	58.	55	6	Comparing different logic gircuits	Chalk & Board
59	59.	55	6	Revision of Unit – 6	Chalk & Board
60	60.	55	6	Overall revision of the subject	Chalk & Board

JES, JHARSUGUDA

Lesson Plan

Name of the faculty	RABI KUMAR DARJI	Total Hrs planned:60 Total Hrs per week: 04
Session	Winter 2022-23	Session : Winter 2022-23
Subject: Code/Name	Th.1b	OOM
Semester/Programme/ Department	3 rd Semester/ Diploma/ Information Technology	
Course Objective	After completion of this course the student will be able to: <ul style="list-style-type: none">• Understand the concepts of OOPs, their advantages and applications• Comprehend the features of Java• Know to create classes, objects, methods• Know the concepts and advantages of overloading methods and type conversions• Appreciate the concepts of inheritance and the various types of inheritance.• Understand the use of Interfaces and system packages• Use the various operations of files to perform file operations• Understand the concept of managing errors and exceptions	

JES, JHARSUGUDA

Sl.No	Detail Description of Topics/Subtopics	Mode of Lecture
1	Chapter1: OBJECT ORIENTED PROGRAMMING (OOPS) CONCEPTS	Chalk & talk
2	Programming Languages	Chalk & talk
3	Object Oriented Programming	Chalk & talk
4	OOPS concepts and terminology	PPT
5	Benefit of OOPS & Application of OOPS	Chalk & talk
6	Revision of Chapter 1	Questionaries
7	Chapter2: INTRODUCTION TO JAVA	Chalk & talk
8	What is Java?	Chalk & talk
9	Execution Model of Java, The Java Virtual Machine	PPT
10	A First Java Program	Chalk & talk
11	Variables and Data types	Chalk & talk
12	Primitive Datatypes & Declarations	Chalk & talk
13	Numeric and Character Literals, String Literals	Chalk & talk
14	Arrays, Non-Primitive Datatypes	Chalk & talk
15	Casting and Type Casting	Chalk & talk
16	Widening and Narrowing Conversions	Chalk & talk
17	Operators and Expressions	Chalk & talk
18	Control Flow Statements	Chalk & talk
19	Revision of Chapter 3	Questionaries
20	Chapter 3: OBJECTS AND CLASSES	Chalk & talk
21	Concept and Syntax of class	Chalk & talk
22	Defining a Class	PPT
23	Concept and Syntax of Methods	Chalk & talk
24	Defining Methods	Chalk & talk
25	Creating an Object	Chalk & talk
26	Accessing Class Members	Chalk & talk
27	Instance Data and Class Data	Chalk & talk
28	Constructors	Chalk & talk
29	Access specifiers	Chalk & talk
30	Access Modifiers	PPT
31	Access Control	Chalk & talk
32	Revision of Chapter 3	Questionaries & Quiz
33	Chapter 4: USING JAVA OBJECTS	Chalk & talk
34	String Builder and String Buffer	PPT
35	Methods and Messages	Chalk & talk
36	Parameter Passing	Chalk & talk
37	Comparing and Identifying Objects	Chalk & talk
38	Revision of Chapter 4	Questionaries

JES, JHARSUGUDA

39	Chapter 5: INHERITANCE	Chalk & talk
40	Inheritance in Java	PPT
41	Use of Inheritance, Types of Inheritance	Chalk & talk
42	Single Inheritance	Chalk & talk
43	Multi-level Inheritance	Chalk & talk
44	Hierarchical Inheritance	Chalk & talk
45	Hybrid Inheritance	Chalk & talk
46	Revision of Chapter 5	Questionaries
47	Chapter 6 : POLYMORPHISM	Chalk & talk
48	Types of Polymorphism	Chalk & talk
49	Method Overloading	Chalk & talk
50	Run time Polymorphism	Chalk & talk
51	Method Overriding	PPT
52	Revision of Chapter 6	Questionaries
53	Chapter 7 : PACKAGES: PUTTING CLASSES TOGETHER	Chalk & talk
54	Java API Packages	Chalk & talk
55	Using System Packages, Naming Convention	Chalk & talk
56	Creating Packages, Accessing a Package	PPT
57	Using a Package, Adding a Class to Package	Chalk & talk
58	Hiding Classes, Static Import	Chalk & talk
59	Revision of Chapter 7	Questionaries
60	Chapter 8 : JAVA FILES AND I/O	Chalk & talk
61	What is a stream ?	Chalk & talk
62	Reading and writing to files(only txt files)	Chalk & talk
63	Input and Output Stream	PPT
64	Manipulating Input data	Chalk & talk
65	Opening and Closing Streams	Chalk & talk
66	Predefined streams, File handling Classes and Methods	Chalk & talk
67	Revision of Chapter 8	Questionaries
68	Chapter 9 : EXCEPTION HANDLING	Chalk & talk
69	Exceptions Overview, Exception Keywords	PPT
70	Catching Exceptions	Chalk & talk
71	Using Finally Statement, Exception Methods	Chalk & talk
72	Declaring Exceptions	Chalk & talk
73	Defining and throwing exceptions	Chalk & talk
74	Errors and Runtime Exceptions	Chalk & talk
75	Revision of Chapter 9	Questionaries
76	Revision of Chapter 1-9	Questionaries & Quiz

Text Book- 1(TB1): Programming with Java **Name of Authors:** E. Balagurusami **Name of Publisher:** The McGraw-Hill

Reference Book 1 (RB1): Java A Beginner's Guide **Name of Authors :** Herbert Schildt **Name of Publisher:** McGraw-Hill Education

INFORMATION TECHNOLOGY DEPARTMENT

LESSON PLAN	
JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA	
Name of the Faculty: Mr. Rabi Kumar Darji	Academic Year: 2022-23
Course No.: Th.1	Course Name: CSA
Program: Diploma	Branch: IT
Year / Sem: II/ III	Section:

Sl. No.	Period /Class	Time (min)	Unit	Topic to be covered	Teaching method
1.	1.	55	1	Introduction to Computer Architecture	Green Board
2.	2.	55	1	Basic Structure of Computer Hardware	Green Board
3.	3.	55	1	Components of Computer Hardware	PPT
4.	4.	55	1	Functional Units	Green Board
5.	5.	55	1	Performance Measures	NPTTEL VIDEO
6.	6.	55	1	Performance Measures	Green Board
7.	7.	55	1	Revision of Chapter 1	Questionnaires & Quiz
8.	8.	55	1	Old Question Discussion	Green Board
9.	9.	55	1	Old Question Task & Doubt	Green Board
10.	10.	55	2	Introduction to Instruction Format	Green Board
11.	11.	55	2	Fundamentals to Instructions	Green Board
12.	12.	55	2	Opcode & Operands	Green Board
13.	13.	55	2	Types of Instruction	NPTTEL VIDEO
14.	14.	55	2	Types of Instruction	Green Board
15.	15.	55	2	Addressing Modes	Green Board
16.	16.	55	2	Programs using Different Instruction	Green Board
17.	17.	55	2	Revision of Chapter 2	Questionnaires & Quiz
18.	18.	55	2	Old Question Discussion	Green Board
19.	19.	55	3	Introduction to Processor System	PPT
20.	20.	55	3	Registers and Types of Registers	Green Board
21.	21.	55	3	Instruction Execution	NPTTEL VIDEO
22.	22.	55	3	Instruction Execution	Green Board
23.	23.	55	3	Control Unit and its type	Green Board
24.	24.	55	3	Hardwired Control Unit	Green Board
25.	25.	55	3	Microprogrammed Control Unit	Green Board
26.	26.	55	3	Revision of Chapter 3	Questionnaires & Quiz
27.	27.	55	3	Old Question Discussion	Green Board
28.	28.	55	4	Memory System Organization	Green Board
29.	29.	55	4	Memory characteristics	Green Board
30.	30.	55	4	Memory hierarchy	PPT
31.	31.	55	4	Type and Structure of RAM and ROM	Green Board
32.	32.	55	4	Cache Memory and its policies	Green Board
33.	33.	55	4	Cache Memory Mapping Technique	NPTTEL VIDEO
34.	34.	55	4	Cache Memory Mapping Technique	Green Board
35.	35.	55	4	Numerical on Cache Memory Mapping	Green Board

INFORMATION TECHNOLOGY DEPARTMENT

36.	36.	55	4	Secondary Memory and its Structure	PPT
37.	37.	55	4	Virtual Memory	Green Board
38.	38.	55	4	Revision of Chapter 4	Questionnaires & Quiz
39.	39.	55	4	Old Question Discussion	Green Board
40.	40.	55	5	Input-Output System	Green Board
41.	41.	55	5	Programmed I/O and Interrupt-initiated I/O	PPT
42.	42.	55	5	Direct Memory Access (DMA)	NPTEL VIDEO
43.	43.	55	5	Input-Output Processor	Green Board
44.	44.	55	5	Revision of Chapter 5	Questionnaires & Quiz
45.	45.	55	5	Old Question Discussion	Green Board
46.	46.	55	6	Introduction to Bus and System Bus	Green Board
47.	47.	55	6	Types of System Bus	Green Board
48.	48.	55	6	Structure of Bus	NPTEL VIDEO
49.	49.	55	6	Parameter to Design Bus	PPT
50.	50.	55	6	Revision of Chapter 6	Questionnaires & Quiz
51.	51.	55	6	Old Question Discussion	Green Board
52.	52.	55	7	Parallel Processing	Green Board
53.	53.	55	7	Pipelining and its Type	Green Board
54.	54.	55	7	Pipelining and its Type	Green Board
55.	55.	55	7	Arithmetic Pipeline and Instruction Pipeline	NPTEL VIDEO
56.	56.	55	7	Multiprocessors and its Characteristics	PPT
57.	57.	55	7	Flynn's Classification of Multiprocessor	NPTEL VIDEO
58.	58.	55	7	Flynn's Classification of Multiprocessor	Green Board
59.	59.	55	7	Revision of Chapter 6	Questionnaires & Quiz
60.	60.	55	7	Old Question Discussion	Green Board

REFERENCES

<i>Sl. No.</i>	<i>Name of Authors</i>	<i>Title of the Book</i>	<i>Name of the Publisher</i>
TB1	Morris Mano	Computer System Architecture, Third Edition	Pearson
RB1	Er. Rajeev Chopra	Computer Architecture and Organization	S. Chand

1.