## Maharaja Ranjit Singh College of Professional Sciences, Indore Department of Computer Science Lesson Plan - B. Sc. I Year Subject - Introduction to Information Technology & Computer Organization Teacher - Prof. Meenakshi Vyas

Day/Lecture	Unit	Торіс
1	1	Introduction of computer:, Block Diagram of Computer
2		types and classification
3		CPU:- function of each unit
4		Types of Memory
5		Types of Memory
6		pen drive, Hard disk and optical disk,Blue ray Disc
7		Mouse, Track ball, Joy stick, Digitizing tablet
8		light pen, Touch screen, mic
9		Scanning: MICR, OCR, OMR, Barcode reader
10		Webcam, Digi camera, PoS, Touch pad, Smart card
11		Printers: Dot matrix, Laser and inkjet printers, Plotters
12	2	software, its types and ,Relation between hardware and software
13		Logical system Architecture showing relationship b/w hardware
14		Function of system software, types
15		language translators
16		Utility programs, Communication software
17		Word processing
18		Speardsheet, Database, Graphics personal assistance
19		Education, Entertainment software
20		Open source Terminologies:Open source software
21		Freeware, Shareware, Proprietary software
22		FLOSS ,GNU, FSF, OSI
23	3	Word processing: Introduction of word processing
24		MS word: Features, Creating, Saving and oprating multi document
25		Editing text:Selecting, Inserting, deleting moving text
26		Previewing documents, printing document
27		Formatting Documents: Paragraph formats
28		Aligning Text and Paragraph, Borders and Shading
29		Headers and Footers
30		Introduction of Excel:worksheet basic,Creating worksheet
31		Data types:dates, alphanumeric values
32		Toolbars and Menus
33		keyboard shortcuts
34		Working with single and multiple workbook coping
35		renaming, moving, adding and deleting

36		Working with formulas & cell referencing
37		Auto sum,coping formulas
38		Powerpoint Presentation: Introduction of powerpoint
39		Slide show, Formatting, Creating a Presentation
40		Inserting Smartart & Hyperlinks
41		Adding Objects, Applying Transition
42		Adding Table, Animation effects
43		Charts & Media files
44	4	Intro to Number system, Decimal, Binary, Octal, Hexadecimal
45		1's & 2's complement
46		Representation of Positive and Negetive numbers:
47		Binary fixed point & Flaoting point Representation
48		Arithmetic operation on Binary numbers
49		Overflow & underflow
50		Character codes
51		Logic gates:AND,OR,NOT & their truth tables
52		NOR, NAND & XOR gates
53		Conversion universal to Basic Gates
54		Counters, Registers, Shift Registers
55	5	Storing data and program in memory
56		Memory Hierarchy in a computer
57		Internal Organization of Semiconductor Main memory chips
58		Semiconductor memory RAM and ROM, Auxiliary Memory
59		Peripheral Devices
60		Magnetic Memories and Hard disk
61		Optical Disks and CD Memories
62		VDU, CRT monitor,LCD Displays
63		Touch screen Displays
64		Print Devices Multiprocessor & Multi core Architecture
65		Flynn Classification:SISD.SIMD, MISD, MIMD

Maharaja Ranjit Singh College of Professional Sciences, Indore				
	Department of Computer Science			
	Lesson Plan - BSc I yr IT(July 2017 - April2018)			
	Subject -Practical FOC			
	Teacher - Prof. Meenakshi Vyas			
Day/Lecture	Торіс			
1	Desktop,start menu,icons,wall paper,screen saver,task bar			
2	Control panel			
3	Control panel			
4	My computer, windows explorer, Accessories			
5	Creating and managing folders,			
6	Managing files and drives, logging off and shutting down windows			
7	Revision			
8	Assignment & steps to complete			
9	Wordprocessing,MS Word,Screen Description			
10	Creating ,Saving and Opening Document			
11	Home Ribbon Options			
12	Insert ribbon			
13	Insert ribbon: Tables and other features			
14	Page Layout			
15	Page Layout			
16	Refernces			
17	Mailing Ribbon :Mail-merge			
18	Macro			
19	Revision			
20	Assignment & srteps to complete			
21	Excel- Introduction to workbook and worksheet, screen description			
22	Saving a work book, editing cells, Entering information in a worksheet-numbers, formula, etc			
23	Entering information in a worksheet-numbers,formula,etc.,			
24	Using commands and functions,			
25	Moving and copying, Inserting and deleting rows and columns			
26	Creating charts, pivot charts and Pivot tables			
27	page setup : margins adding headers& footers before printing			
28	Print Settings			
29	Practice sheets			
30	Practice sheets			

		Maharaja Ranjit Singh College of Professional Sciences, Indore
		Lesson Plan - B. Sc. I Year IT (July 2019 - Mar 2020)
		Subject - Programming & Problem Solving through C & C++
		Teacher - Shwetanjali Vijayvargiya
Day/Lecture	Unit	Торіс
1		Explain about Language, History of C, Basic Structure of C Program.
2		Explain First Program of C.
3		Explain Data type,Keyword,token,Identifier and Printf Scanf Function with Program.
4		Operators and Expressions with Program.
5		Some basic program of C.
6	1	Loops and Nested loops with Programs.
7		Programs using loop.
8		Different controll statement (if,if.else,break,continue,goto,exit,switch case) with Programs.
9		Explain Function in C. User Define Function with Programs.
10		Programs using Function.
11		Revision of 1st Unit With Practical
12		Define Arrays and Types of Array.
13		Arrays programs(matrix Programming).
14		Arrays and Functions, Explain basic of String.
15		Explain different string function with programming.
16		Explain storage classes of C with Example.
1/	2	Explain Dointer and Function Dointer and Array
10		Call by Value and Call by Deference with programs
20		Explain Structure with exemple
20		Program using pointer and function
21		Program using pointer and function.
22		Class test od Ist and 2nd Unit
23		Give Difference b/w Procedure Oriented and Object Oriented programming
25		Concents of OOPs
25		Introduction of C++ Structure of C++ program
27		Explain Classes and Objects with program.
28		Explain member function. Inline and friend function with program.
29		Explain Virtual Function, private function with program
30	3	Explain Static Member Fuction and static variable with program.
31		Programs on Objects as Function and Pointers tp members
32		Programs in C++.
33		Revision of 3rd Unit.
34		Revision of 1nd Unit
35		Revision of 2nd Unit.
36		Explain Constructors and different types of aconstructors with program.
37		continue with Constructors and Explain destructure with program.
38		Operator overloading (unary and binary) with example.
39		programs for operator overloading.
40		Explain Function Overloading.
41		program for function overloading.
42		Explain Inheritence and types of inheritence.
43	4	continue with inheritence and programs of inheritence
44		Explain visibility mode in inheritence with program.
45		Programs of different type of inheritence
46		Explain Virtual Base Classes with example.
47		programs of 4th unit.
48		programs of 4th unit.
49		programs of 4th unit.
50		Kevision oi 4th Unit.
51		Epiaim Polymorphism with example.
52		Explain C + + strom Cases
55		Explain C++ suem Casses.
54		

55	5	File of C++ with programs
56	5	continue File in C++.
57		Revision of 5th Unit.
58		Revision.
59		Revision.
60		Revision.

## Maharaja Ranjit Singh College of Professional Sciences, Indore

Lesson Plan - B. Sc. I Year IT (July 2019 - Mar 2020)

Subject - Programming & Problem Solving through C & C++ (Practical) Teacher - Shwetanjali Vijayvargiya

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Day/Lecture	Торіс
1	WAP to print Hello
2	WAP to perform arithmetic operations (Addition, Subtraction, Multiplication, Division) on two numbers.
3	Program to find area and circumference of circle
4	Program to swap of two no's using third variable
5	Program to swap of two no's without using third variable
6	Program to find greatest of 3 numbers
7	Program to print a table of a number
9	Program to print a telephone i series un to p
0	Program to print Product series up to n
9	Program to reverse a given number
10	Program to find the sum of digit of a given number
11	Program to find factorial of a number
12	Program to check whether a given no is Armstrong or not
13	WAP to generate first N prime numbers
14	WAP to generate first N prime numbers
15	Program to find whether given no is a prime no or not
16	Program to print the different patterns
17	Program using array
18	program of matrix
19	program using Function.
20	program for string Function.
20	Program using Founder
21	Program using class and object
22	Write a function which accent object as a parameter and returns object
23	when a function when accept object as a parameter and returns object
24	Write a program to find the square root using inline function
25	Write a program to mind the square root using minine function.
20	Write a program to overload + operator to concatenate two string.
27	while a program to overload ++ operator to increment age of person by one month.
28	Write a program to illustrate the use of friend function.
29	Program for different Inheritence.
30	Program for Virtual function
31	Program for File.

	Maharaja Ranjit Singh College of Professional Sciences, Indore				
	Department of Computer Science				
	Lesson Plan - B. Sc.(IT) II Year (July 2019 - March 2020)				
		Subject - Operating System Concepts & Computer Network			
		Teacher - Prof. Shailesh Hirve			
Day	Unit	Topic			
1		Introduction to OS , Functions of OS			
2		Types of OS			
3		Types of OS			
4		System Call, Concepts of Process			
5		Process Scheduling Algorithms and examples			
6		Process Scheduling Algorithms and examples			
7	T	Process Scheduling Algorithms and examples			
8	1	Process Scheduling Algorithms and examples			
9		Introduction to Unix OS, Its Features			
10		Unix Commands			
11		Unix Commands			
12		Unix Commands			
13		VI Editor			
14		VI Editor Options			
15		Introduction of Deadlock, Characteristics of Deadlock			
16		Deadlock Prevention			
17		Deadlock Avoidance			
18		Methods for handling Deadlock			
19		Concepts of memory management			
20		Context Switch, Logical & Physical Address space			
21	тт	Configuous & Non Configuous memory allocation			
22	11	Paging			
23		Segmentation			
24		Vertual Memory, Demand Paging			
23		Page Replacement Algorithms			
20		Page Perlagement Algorithms			
27		Page Replacement Algorithms			
20 90		Disk Scheduling Algorithms			
29		Internet Intranet and Extranet			
31		Networking Its advantages and disadvantages			
39		Network Topologies			
33		Different types of Networks			
34		Networking devices			
3.5		OSI Refference model			
00	III				

36	111	TCP/IP Refference model
37		Connection Oriented & Connection Less Services
38	1	Switching Techniques
39		Switching Techniques
40		Data Link Layer: Error Detection & Correction Techniques
41		Data Link Layer: Error Detection & Correction Techniques
42		Data Link Protocols: Simplex, Stop-and-wait
43		Data Link Protocols: Simplex, Stop-and-wait
44		Sliding Window Protocols:, One bit, Go Back N, Selective Repeat
45	IV	Sliding Window Protocols:, One bit, Go Back N, Selective Repeat
46	1 V	Multiple Access Protocols:Aloha, CSMA, CSMA/CD
47		IEEE MAC Protocols: 802.3
48		IEEE MAC Protocols: 802.4
49		IEEE MAC Protocols: 802.5
50		Routing Algorithms: Optimal
51		Routing Algorithms: Flooding
52		Routing Algorithms: Distance Vector
53		Routing Algorithms: Link State
54	V	Internet Protocols
55	v	Internet Addressing
56		UDP & TCP Protocols
57		Client Server Architecture, DNS, WWW
58		HTTP, Cookies, Proxy Server
59		E-Mail Protocols

Maharaja Ranjit Singh College of Professional Sciences, Indore				
	Department of Computer Science			
	Lesson Plan - B. Sc.(IT) II Year (July 2019 - March 2020)			
	Subject - Operating System Concepts & Computer Network Practical			
	Teacher - Prof. Shailesh Hirve			
Day	Topic			
1	Commands for files and Directories			
2	Commands for files and Directories			
3	Commands for files and Directories			
4	Commands for files and Directories			
5	Commands for files and Directories			
6	Commands for files and Directories			
7	VI Editor Commands			
8	VI Editor Commands			
9	VI Editor Commands			
10	Process Commands			
11	Process Commands			
12	Communication Commands			
13	Communication Commands			
14	Communication Commands			

# Maharaja Ranjit Singh College of Professional Sciences, Indore Lesson Plan - B. Sc. II-IT (July 2019 - Mar 2020)

Subject - Internet Programming using Java

Teacher - Harshita sharm
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Day/Lecture	Unit	Торіс
1	Ι	Introduction of static and dynamic webpages&Website.
2		HTML Forms,Scripting languages,HTTP Web server
3		Installation and configuration of application server, web.Xml
4		Internet and www,Introduction to java, javaEnvironment, program structure
5		Java virtual machine,tokens,statements,constants & variables,data types.
6		Type casting,operators:Arithematic,Relational,logical Assignments,Increment and Decrement
7		Conditional , bitwise, special operator, practical on operators program of java
8		if statements, ifelse statements, Nesting of ifelsestatementelseif ladder, practical on operators program of java
9		switch,loops-while,do-while,for loop
10		practical on loops program of java
11	II	Defining a class ,adding variables and Methods,creating objects
12		practical on how to create objects in class
13		Accessing class members, constructor and its types
14		practical on constructor programs
15		method overloading and static member
16		Inheritance concept: Extending a class, overriding methods
17		practical on Inheritance concept its types and overriding methods
18		Concept of final variables, methods, classes, Finalize mathod
19		Abstract methods and classes, visibility control
20		practical on final and abstract methods pograms
21		Array concept: one dimensional & Two dimensional .strings
22		Defining Interface, Extending interface, Implementing Interfacevariable
23		packages, practical on programs of Interface
24	III	Local and Remote Applet vs Application
25		Writing Applets, Applets life cycle
26		creating and Executable Applet
27		Designing a web page, Applet Tag
28		Adding Applet to HTML file
29		practical on designing of web page using HTMLTag
30		Running the Applet
31		passing parameters to Applets
32		practical on running the Applets
33		Aligning the display
34	IV	Java Servlets,server development process,Deployment Descriptor
35		Generic servlet and life cycle of servlet
36		servlet packages,classes,interfaces
37		practical on how to create servlet programs
38		practical on how to implement servlet methods
39		Methods and Handling forms with servlet
40		various methods of session handling
41		Introduction to Java Database connectivity
42		various steps in process of connection to the database
43		various types of JDBC Driver
44		practical on connnectivity of database
45	V	Introduction to JSP basics:
46		JSP lifecycle, directives, scripting elements
47		standard actions, implicit objects
48		writing JSPS,Expression language (EL)
49		separating buisness logic and presentation logic.
50		connection of jsp with different database viz.oracle,MS-SQL server,My-SQL
51		practical on how to implement scripting language in websites
52		Java.sql package,type of statement
53		practical on how to work with database.
54		connection pooling: multiple users and need of connection pooling
55		session handling in jsp.
56		Kevision

## Maharaja Ranjit Singh College of Professional Sciences, Indore Lesson Plan - B. Sc. II-IT (July 2019 - Mar 2020)

Subject - Internet Programming using Java Practical

Teacher - Harshita sharma			
Day/Lecture	Торіс		
1	Write a simple java program to print hello		
2	Write a Java program that takes a number as input and prints its multiplication table upto 10.		
3	Write a Java program to print the area and perimeter of a circle.		
4	Write a Java program to add two binary numbers.		
5	Write a Java program to convert a decimal number to binary number and vice versa		
6	Write a Java program to reverse a string.		
7	Write a Java program to count the letters, spaces, numbers and other characters of an input string.		
8	Write a java program to take input from user using scanner class		
9	Find the smallest and largest element from the array		
10	Write a java program to designed a class that demonstrates the use of constructor and destructor.		
11	Write a java program to demonstrate the implementation of abstract class.		
12	Write a java program to implement single level inheritance		
13	Write a java program to implement method overriding		
14	Write a java program to implement multiple inheritance.		
15	Create a package, Add the necessary classes and import the package in java class.		
16	Write a java program to add two matrices and print the resultant matrix.		
17	Write a java program for multiplying two matrices and print the product for the same.		
18	Write a java program to print floyd's traingle using loop concept		
19	Write a java program to implement thread life cycle.		
20	Write a java program to implement multithreading.		
21	Write a java program to open a file and display the contents in the console window.		
22	Write a java program to copy the contents from one file to other file.		
23	Write a java program to read the student data from user and store it in the file.		
24	Create a java script program to accept the first, middle, last names of user and print them.		
25	Write a java script program to add two numbers.		
26	Write a java script program to find the factorial of given number.		
27	Write a java Script program to print all prime numbers.		
28	Write a program to create database using java database connectivity.		
29	Write a program to create, read, update and delete table using database connectivity		
30	Write a java program to implement exception handling.		
31	Write a program to implement finally block in exception handling.		
32	Write a Applet program to display calculator		
33	Write a Applet program to print different geomatric shapes		
34	Write a Applet program to draw face		
35	Write a Applet program to show clock timing		
36	Write a Applet program to change Applet backgroun color using scrollbar		
37	Write a servlet program that print Hello world		
38	Write a servlet that counts and display number of times that has been accessed and saves the count to a file in its destroy method() to make its count persistent		
39	Write a servlets that prints the name and value for its init parameters.		
40	Write a servlets program that display information about its own server		

	Maharaja Ranjit Singh College of Professional Sciences, Indore						
Department of Computer Science							
	Lesson Plan - B. Sc.(IT) III Year (July 2019 - March 2020)						
Subject - DBMS & RDBMS Using Oracle							
		Teacher - Prof. Shailesh Hirve					
Day	Unit	Topic					
1		Introduction of DBMS, purpose of DBMS, view of data,					
2		Scheamas, Instances, Data Dictionary					
3		Data Models					
4		Data Models					
5	Ι	Data Models					
6		Database language, Database administrator,					
7		Database System Structure.					
8		3 View Architecture of DBMS					
9		Data Independence and its types					
10		Entity Relationship Model: Basic Concepts,					
11		Relationships, Mapping Constraints,					
12		Entity Set, weak Entity, Strong Entity, Entity Features					
13		Types of Keys, Types of Attributes					
14	п	E-R Model Notations, E -R Diagram					
15	11	design of an E-R database schema					
16		Generalization					
17		Specialization					
18		Aggrigation					
19		Reduction of E-R schema to table					
20		Introduction of SQL, Role of SQL in DBMS					
21		SQL Commands (DDL, DML, DCL/TCL)					
22		SQL Commands (DDL, DML, DCL/TCL)					
23		SQL Commands (DDL, DML, DCL/TCL)					
24		SQL Commands (DDL, DML, DCL/TCL)					
25		Relational Algebra Operation					
26		Relational Algebra Operation					
27	III	Relational Algebra Operation					
28		Codd's Rule					
29		Pitfalls in Relational Database Design, Decomposition					
30		Normalization using functional dependencies					
31		Normalization using multivalue dependencies					
32		Normalization using joined dependencies					
33		Integrity Constraints:- domain constraints, entity integrity constraints, referential integrity constraints					

34		Concept of Transection, Transection Management
35	IV	ACID Properties
36		Serializability
37		Concurrency Control
38		Lock and their types
39		Locking Protocols
40		Recovery Techniques
41		Emerging Database Technology, Data Warehouse
42		Data Mining, Distributed Database
43		Mobile Database, Object Oriented Database, Geographical Database
44		Query Processing and Optimization
45		Introduction to PL/SQL, block structure of PL/SQL
46		Oracle Data Types
47		Control Statements of PL/SQL
48		Loop Statements of PL/SQL
49	1	Procedure
50	$\mathbf{V}$	Trigger
51		Cursor
52		Package, Index
53		Synonym and Sequence.
54		Programming Examples of PL/SQL
55		Programming Examples of PL/SQL
56		Programming Examples of PL/SQL

	Maharaja Ranjit Singh College of Professional Sciences, Indore		
	Department of Computer Science		
	Lesson Plan - B. Sc.(IT) III Year (July 2019 - March 2020)		
	Subject - DBMS & RDBMS Using Oracle Practical		
	Teacher - Prof. Shailesh Hirve		
Day	Торіс		
1	Introduction to SQL, DDL, DML, and DCL statements		
2	Introduction to SQL, DDL, DML, and DCL statements		
3	DDL Commands		
4	DDL Commands		
5	DDL Commands		
6	DML Commands		
7	DML Commands		
8	DML Commands		
9	various Form of SELECT- Simple, Using Special Operators for Data Access		
10	various Form of SELECT- Simple, Using Special Operators for Data Access		
11	various Form of SELECT- Simple, Using Special Operators for Data Access		
12	various Form of SELECT- Simple, Using Special Operators for Data Access		
13	DCL Commands		
14	DCL Commands		
15	TCL Commands		
16	TCL Commands		
17	Nested Queries & Exposure to Joins, Aggregate Functions		
18	Nested Queries & Exposure to Joins, Aggregate Functions		
19	Introduction to PL/SQL		
20	Control Statements of PL/SQL		
21	Control Statements of PL/SQL		
22	Loop Statements of PL/SQL		
23	Loop Statements of PL/SQL		
24	Procedure		
25	Trigger		
26	Cursor		
27	Package, Index		
28	Programming Examples of PL/SQL		
29	Programming Examples of PL/SQL		
30	Programming Examples of PL/SQL		

### Maharaja Ranjit Singh College of Professional Sciences, Indore

Department of Computer Science Lesson Plan -B.Sc.3 Yr Subject -IT Trends & Technology **Teacher -Prof Meenakshi Vyas** 

Day/Lecture	Unit	Торіс
1		Distribution the processing and storage function
2		parallel systems ,Diffrence between parrallel & Distributed systems
3		Advantages & Disadvantages of Parallel and Distributed system
4		Architecture of Distributed systems, Security and Services of distributed system
5	0.22	Wireless networks
6	One	E-Supply Chain Managmnet
7		Commponent & Architecture
8		E-Customer Relationship Managemnet (E-CRM)
9		Data mining
10		Enterprise Resource Planning concepts
11		Datawarehouse and data marts
12		Data warehouse components & Uses
13		Advantages of data warehouse
14		Standards reports and queries
15		Queries against summarised data
16	Two	Interface with other warehouse
17		Evolution of data mining
18		Data mining -verification versus discovery
19		Advantages of data mining
20		Big Data concepts
21		Introduction to HADOOP
22		Mobile Commerce
23		Technologies for mobile commerce
24		WAP & its basics, WAP Programming model
25		wireless technologies
26		diffrent generations & Security issues in wireless communication
27		Geographic Information system (GIS)
28		Components of GIS
29	Throp	Working of GIS
30	mee	Geographic Refrences
31		Vector and Raster Models
32		Data for GIS
33		GIS and related Technologies
34		Deskstop mapping ,CAD
35		Remote sensing and GPS
36		Virtual private network
37		Elements and basic requirments of VPN & Its uses
38		Modern communication and telephony technology
39		CDMA,WLL,GSM,VOIP,Bluetooth
40		WiFi, 2 G-5G Technology
41		Communication over radio
42	Four	Microwave systems
43	Tour	Communication Satellites ,Radar
44		Fiber optics
45		ISDN,Properties
46		Network Security & Aspects of Security
47		Encryption and Decryprtion
48		Multimedia ,Type of graphics -bitmap & Vector graphics
49		Graphics effects and techniques
50		Music and video formats
51		Uses of multimedia
52		Advantage and application of multimedia
53		Artificial Intelligence and expert system
54		Concepts of AI & Expert System
55	Five	Expert system ,Merits and demerits of expertsystem
56		Application of expert system and Al
57		Introduction of virtual reality
58		Applications of VR in defense
59		Education and Bussiness
60		Elementry concepts of IoT
61		Smart Systems
62		Enbedded systems
63		Cloud Computing

Maharaja Ranjit Singh College of Professional Sciences, Indore			
	Lesso	on Plan - B. Sc. III Year (July 2019 - Feb 2020)	
		Subject - BCIT	
		Teacher - Prof. Pravin Kumar Sharma	
Day/Lecture	Unit	Торіс	
1	Ι	What is computer stands for?, Computer characteristics and applications	
2	Ι	Block diagram of computer and function of each component	
3	Ι	Classicfication of computer (Purpose, Data Handling and Functionality)	
4	Ι	Desktop, Portable: Notebook, Laptop, smart phone	
5	Ι	Difference between workstation and server	
6	Ι	What is memory?, types of memory with the help of hierarchical diagram	
7	Ι	Primary Memory: RAM and its types, Rom and its types	
8	Ι	Input devices and its functions (Keyboard, Mouse, Scanner, Joystick and Touch Screen)	
9	Ι	Output Devices and its fucntions( Monitor its types and characteristics )	
10	Ι	Printer and its types (Impact: Dotmatrix, Daisy wheel and Non-Impact: Inkjet and Laserjet)	
11	Ι	Introduction Secondary storage devices with hierarchical diagram	
12	Ι	Sequential access devices: Magnetic Tape and Process to store data in magnetic tape	
13	Ι	Direct Access devices: Magnetic disc (floppy and Hard disk its types) and Optical disc (CD, DVD, CD-RW, WROM)	
14	Ι	Technology used in flash memory and memory cards.	
15	II	What is an Operating System? Its logical architecutre and its classification (CLI and GUI)	
16	II	Types of Operating system(Batch, Multitasking, Time sharing, Multiprocessor, Real time and Embeded)	
17	II	Booting process(Cold and Warm), Introduction of DOS and required system files to run DOS.	
18	II	Internal and External commands of DOS(date, time, cls, copy con, format)	
19	II	Windows Operating System and its features, difference between menu oriented and ribbon oriented windows O.S.	
20	II	Control panel and its different application, recycle bin, operations on file and folders (rename, move, seraching contents)	
21	III	What is word processing?, different word processing softwares	
22	III	features of MS-Word processor 2007, ways of creating documents using(Blank, Template)	
23	III	Previewing a document before printing, protecting documents	
24	III	Different components of word processor(Formatting, Ruler, Status and Ribbon, Quick Access tool bar)	

25	III	Paragraph formatting and Table handling features of MS-Word 2007
26	III	Mail-Merge and Macro Creation in MS-Word 2007
27	III	Header and Footer(Different 1st page and Even-Odd)
28	III	Insert Picture, wordart and Charts in MS-Word 2007
29	IV	What is Power point?, its Characteristics and Features
30	IV	Ways of creation of new presentation(Blank, Template, Template with suggested contents, from website)
31	IV	Componets of Power Point(Slide, Handouts, Speakler notes and Outline)
32	IV	Insert new slide in presentation, slide layout, slide desing
33	IV	Different views of Power point presntation
34	IV	Slide Transistion, Slide Sorter, options of Setup show Tab
35	IV	Custom animation, how a presentation run Continuously?
36	IV	Introduction of Spread sheet software, different Spread sheet software for different Platforms
37	IV	what is cell?, Cell range, Row range and Column range in MS-Excel
38	IV	Features of MS-Excel, Forumula bar and different built-in formulas used in MS-Excel wroksheet
39	IV	Insert/Delete row and column, Introduction charts and its types
40	IV	Sorting, Filter and freeze panes options used in MS-Excel
41	IV	Creation of marksheet and salary sheet using MS-Excel
42	V	What is Internet?, History of Internet (ARPANET), different types of connections(Leased line, WiFi, Broadband)
43	V	URL, DNS(Domain Name Server), What is web browser(IE, Mozilla, Crome, Opera)
44	V	What is Search Engine? List of popular serach engines according to application
45	V	Website and tis components, types of websites(static and dynamic)
46	V	diffrence between Website and Web Protal
47	V	E-Mail, sending and receiving of E-mail and different protocols used in it.
48	V	E-Mail address contains, and components of E-Mail
49	V	Introduction of virun and antivirus, types of virus(torjan, spam, E-Mail bombing)
50	V	firewall, different issues during firewall operations
51	V	What is Online transcation and points to remember when make online