

Dr. S. VASUKI

Notes of lesson.
(Even Semester)
April 2022.

Content:

1. I B.Sc I.T - Programming in C
2. II B.Sc I.T - Linux and Shell programming
3. I M.Sc I.T - Advanced Java Programming
4. III B.Sc Bio-chemistry - IDC (Internal Concepts)

Time table

D0	I	II	III	IV	V
D1	I I.T	II I.T			BC
D2	IMSC				IMSC I.T
D3		II I.T		I I.T	IMSC I.T
D4	I I.T			BC	II I.T
D5	I I.T		II I.T	IMSC I.T	
D6	II I.T	I I.T			IMSC I.T

2

IITSC - II Semester

Advanced Java Programming - PERITCC6

Unit I: Java Programming Fundamentals:

Java Language - Introduction - character set - Tokens - Constants - Variables - operators - Expressions - Library methods - Strings - Control Statement: If statement - Switch statement - while Statement - Do while statement - For statement

Unit II: JDBC classes:

Introduction - Establishing a Connection - Creation of Data tables - Entering data into the tables - Table updating - Use of prepared statement - obtaining metadata - Using transactions - Scrollable result sets

Unit III: Remote Method Invocation:

Introduction - Remote Interface - java.rmi.Server package - The Naming class - RMI Security Manager class - RMI exceptions - Steps involved in creating RMI client and server classes.

Unit IV: Java Servlets:

Introduction - life cycle of a servlet - A simple Servlet - Retrieving the values of parameters - Retrieving the values of initialization parameters - Cookies - creating it to the client - Retrieving

Unit V: Swing Controls:

Introduction - life cycle of a Servlet

- A simple Servlet - Retrieving the stored Cookies - Session tracking -

JApplet - JLabel - JButton - JTextField.

- JTextArea - Jcheckbox - Jradio button

- JComboBox - JList - JMenu.

Unit VI - Latest Learning (for CIA only)

Latest development relating to the Course.

Text books:

1. programming with Java - C. M. Hetzel

Unit I chapter 1, 2, 3 II chapter 18

Unit III chapter 20 IV chapter 19.

Unit V chapter 11

Reference book.

1. Mastering Java - Dr. Edward

Lavieri, packt publications, 2018

2. Peter Haggard, "Practical Java Programming Language Guide"

Addison Wesley Pub Co, 1st edition
2015

Class: I.M.SCI.T

Date: 10.05.22

DO: D2

Hours: 1 hr

Anatomy of Servlet.

HttpServlet Request Object:

- Headers

- Query string

- Session

- Cookies

HttpServlet Response Object

- Headers

- Status Code

- Cookies

Overview

Class: I.M.SCI.T

Date: 11.5.22

DO: D5

Hours: 1 hr

Get method & Post method

Get method sends the encoded user information appended to the page request.

It is separated by ?

- Small amount of data (less than 25KB)

Stored in using get method

- Post method

Servlet handles this type of request using post method

- Example program

Class: I.M.Sc.I.T

Date: 13.05.22

Do: D5

Hours: 1 1/2 hr.

Unit - V

Swings

- Swing class placed in javax.swing
- It extends the familiar ^{packaging} applet class
- Components of Swing
 - i) JLabel
 - ii) JButton Control
 - iii) Jradio Control.
 - iv) Menus.
 - v) J Combobox Control.
 - vi) Jcheckbox, overview.

Class:

Date:

Do:

Hours:

English
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P.D. Day
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DIGITAL COMPUTER FUNDAMENTALS - UARIITACS

Allied course - 5 (Semester IV.)

UNIT I: Number system.

The binary number system: Binary to Decimal, decimal to binary conversion, - Binary Addition - Binary Subtraction: 1's, 2's, 9's and 10's Complements - Binary Multiplication - Octal number system - Hexa decimal number systems.

UNIT II: Logic gates and Boolean Algebra.

Boolean Algebra and logic gates: AND, OR, NOT, NAND, NOR, EX-OR, and EX-NOR - Boolean Algebra: Definitions - Fundamentals of Boolean Algebra - Boolean function - Maxterms - Minterms - Laws - and Theorems of Boolean Algebra - De'Morgan's Theorem UBB - NAND gate as UBB - NOR gate as UBB.

UNIT III: K-Map.

Fundamental products - sum of products - product of sum - Karnaugh Map: Two, Three, four and five variable method - Don't care conditions, overlapping groups - Rolling the map - Eliminating Redundant groups.

UNIT IV: COMBINATIONAL LOGIC CIRCUITS

Introduction - Addition - Subtraction - Multiplexers - De-Multiplexers - Decoders - Encoders.

UNIT V: Sequential logic circuit:

Flip flops: RS flip flop - Master slave flip flop - Counters: Asynchronous (or) Ripple counter - Ring Counter - state diagrams and state table - shift Registers.

UNIT VI: Latest Learning (for CIA only)

Latest development related to the course during the semester concerned.

Text Book:

"Principles of Digital Electronics"

- K. Meena, PHI Learning Pvt, Ltd,
New Delhi, 2009.

Reference Book:

1. Computer System Architecture -

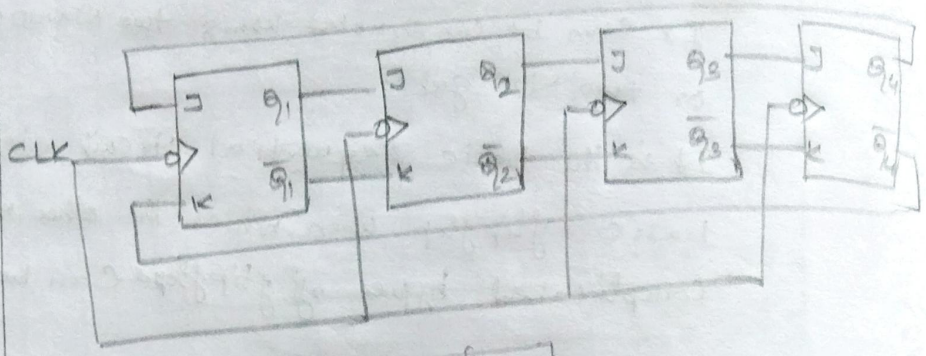
M. Morris Mano, 3rd Edition, PHI Learning
Pvt. Ltd. 2007.

2. Computer Architecture and Logic Design.

- Thomas. C. Bartee.

~~Im~~
21/2/22

Ring Counter



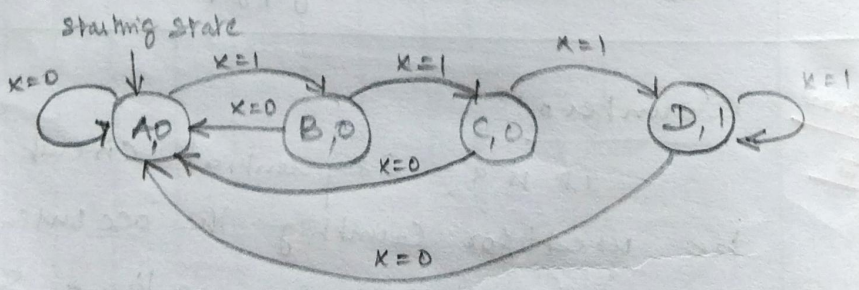
Q_4	Q_3	Q_2	Q_1
0	0	0	1
0	0	1	0
0	1	0	0
1	0	0	0
0	0	0	1

fm

17.5.2022
VI | IV

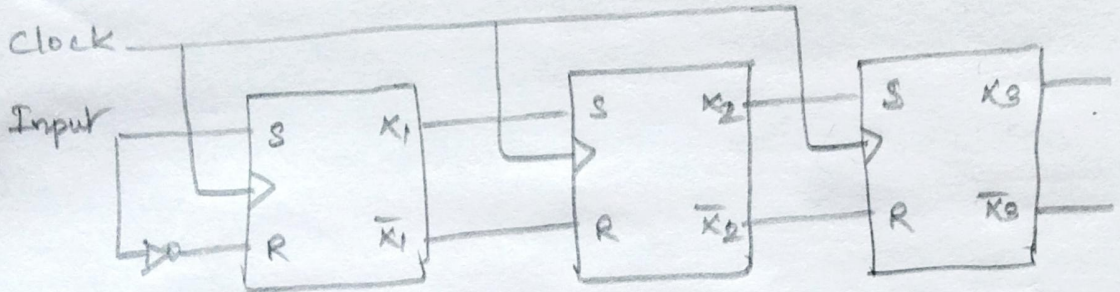
State diagrams and state tables:

It is used to analyze and design both the flip-flops and gates.



Present state	output Z	Next state	
		Input x	
		0	1
A	0	A	B
B	0	A	C
C	0	A	D
D	1	A	D

Shift Register:



It accepts information from some input source and then shifts this information along the chain of flipflops, moving it through one flipflop each time when a positive-going clock signal occurs.

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30/09/20

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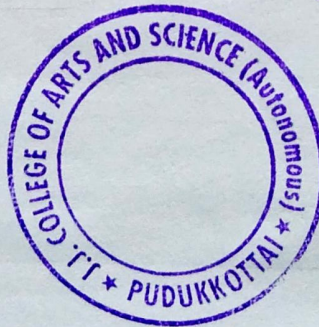
(Signature)

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LESSON PLAN.

ACADEMIC YEAR

2021-2022.

EVEN SEMESTER.

SUBJECT CODE : U4R1STSBE1

SUBJECT NAME : WEB TECHNOLOGY

UNIT I : BASIC INTERNET CONCEPTS.

What is Internet - History - Host machines and Host names - Client / Server Model - Domain names - Protocols - IP Address.

UNIT II : ADVANCED INTERNET CONCEPTS.

Anatomy of an Email message - Viewing - Sending - Replying - Search Engines - meta Search Engine.

UNIT III : HTML INTRODUCTION :

History of HTML - HTML Document - Anchor tags - Hyper links - Sample HTML Documents.

UNIT IV : HEAD AND BODY SECTIONS.

Header Section - Title - Prologue - Links - Comment - Heading - Horizontal Rule - Paragraph - Images and pictures - ordered list and unordered list.

UNIT V : TABLES.

Table creation - Colspan, Rowspan - Cellspacing, Cell padding - Nested Tables. FRAMES : Frameset Definition - Frame definition - Nested Frames : FORMS : Action Attribute - Method Attribute - Drop Down List - Sample forms.

UNIT VI : LATEST LEARNING (FOR CIA ONLY)

Latest development related to the course during the semester concerned.

TEXT BOOK (S)

1. WENDY G. Lehnert, "Internet 101 - A Beginners Guide to Internet and the world wide web", Addison wesley. UNITS I & II.
2. C. Xavier, "world wide web design with HTML", Tata McGraw Hill publishing Limited, New Delhi, UNITS III, IV & V

REFERENCE BOOK.

Web Technologies, Black book. Dreamtech Press
2018.

~~21/2/21~~

<frame set rows = "10%, 80%, 10%">

<frame name = "top" src = "/html/top-frame.html">

<frame name = "main" src = "/html/main-frame.html">

<frame name = "bottom" src = "/html/bottom-frame.html">

<noframes>

<body> Your browser does not support frames. </body>

</noframes>

</frameset>

</html>

DATE: 17.5.22 DAY/HOUR: 5/10 CLASS: B.Sc IT

HTML <form> tag is used to create an HTML

form and it has

<form action = "Script URL" method = "GET/POST">

form elements like input, text area etc.

</form>

Form Attributes.

① Action ② method ③ target ④ enctype

HTML Form Controls.

There are different types of form controls

to use collect data using HTML form

- ☒ Text Input Controls.
- ☒ Checkboxes Controls
- ☒ Radio Box Controls
- ☒ Select box Control
- ☒ File Select boxes
- ☒ Hidden Controls
- ☒ Clickable Buttons
- ☒ Submit and Reset Button.

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Notes of Lesson..

[2021 - 2022] - Even semester

Class : IIT-B-SC [IT]
Subject : DOT NET TECHNOLOGY
Subject code : U6R1ITMBE2
Semester : VI

UNIT-1: ASP DOT NET Framework

Over view of Dot Net Framework - New features of ASP Dot Net - the VWD IDE - Introducing ASP Dot Net Pages.

UNIT-2: web Form Controls

Label - Textbox - Button - Password control - Image control - Drop Down list - Checkbox - Radio Button - List box.

UNIT-3: validation Controls

validation control: Required field validator - comparison validator - Range validator - Regular Expression validate - Custom validator - validation Summary - calendar - AdRotator.

UNIT-4: Advanced ASP dot net concepts

Tree view control - menu control - Sitemap Path - Login control - Login view - Login status.

UNIT-5: working with DataBases

working with ADO Dot net - overview of ADO
Dot net concepts: Connections, Data Adapter,
Data sets - Accessing data with server explorer -
Using with Grid view - Data binding with
Grid View Control.

UNIT-6: Latest Learning (For CIA only)

Latest development related to the course
during the semester concerned.

Text Book:

"ASP DOT NET 2.0" Block Book, Dream Tec Press,
2006 Edition. [Unit 1: Chapter 1, 2, Unit 2: Chapters 4, 5,
Unit 3: Chapter 7. Unit 4: Chapter 8, Unit 5: Chapter 9]

Reference Book:

The complete Reference ASP.NET, Mathew McDondd,
McGraw Hill Education, 2018.

~~18/12/18~~

(iii) Command Objects:

Data adapters can read, add, update and delete records in a data source. To allow you to specify how each of these operations work, a data adapter contains command objects of each of them.

Select command

Insert command

Update command

Delete command.

(iv) Datasets:

Data sets store data in a disconnected cache. The structure of a dataset is similar to that of a relational database, it gives you access to an object model of tables, row and columns and it contains constraints and relationship defined for the dataset.

13/5/22

DE/3415

3rd hr \Rightarrow III - 'A'

4th hr \Rightarrow III - 'B'

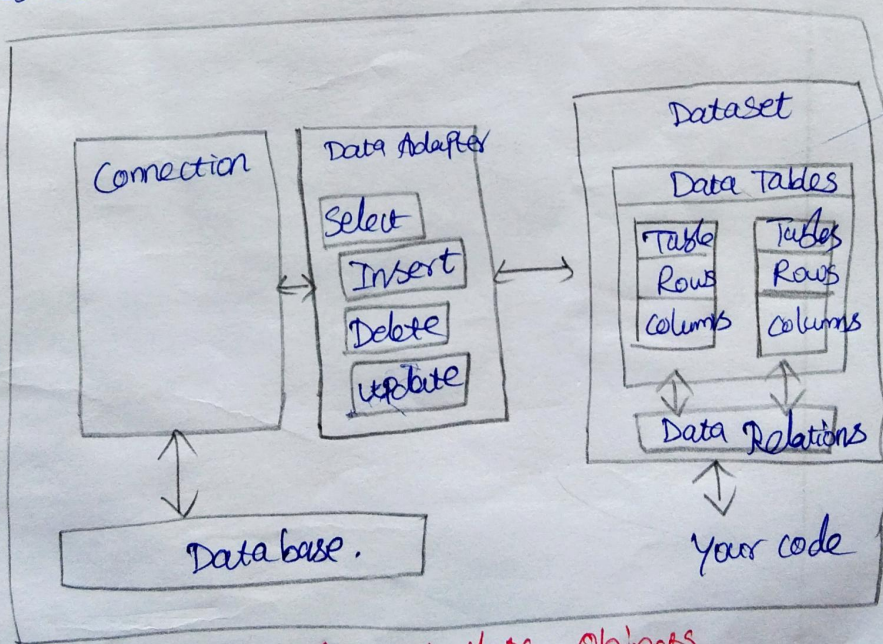
Connections, Data Adapters, and Datasets [ICT Class]

ASP.net 2.0 uses ADO.net its primary data access and manipulation protocol.

* you first get a connection to a data source, which means using a data Provider to access a database.

* A connection to a data source, you create a data adapter to work with that data. you need a data adapter because datasets do not maintain any active connection to the database.

* You use **SQLDataAdapter**, **oracleDataAdapter** to work with the **SQL server** data Provider, you use **SQLData Adapter** and **odbcDataAdapters** Objects.



ADO.net data Objects.

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03/10/21
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NOTES OF LESSON.

2021 - 2022
 EVEN SEMESTER

D/H	1	2	3	4	5
D1	III A		IMSc		III B
D2	III A		III B	III A	III A
D3	←————→			IMSc	
D4	III B			III B B	IMSc
D5	IMSc		IMSc	III B	
D6	IMSc			III A	

III IT 'A'

D/H	1	2	3	4	5
D1	PHP	SE	MBE	IDC	GS
D2	PHP	MBE	SE	SBE	PHP
D3	← LAB →			SBE	IDC
D4	← Proj. →			PHP	SE
D5	← Proj. →			MBE	SE
D6	GS	IDC	SE	PHP	MBE

Core Course - PHP PROGRAMMING

Subcode: UGR1ITCC13

UNIT: 1 : INTRODUCTION

Variables: Creating variables - Creating Constants - Data types - Operators - If statement - else if statement - if else ladder statement - for loop - while loop - do while loop.

UNIT: 2 ARRAYS & STRING FUNCTIONS

The php array functions - extracting data from arrays - Sorting arrays - String functions - formatting text strings - Creating functions in php - using default arguments - passing functions some data

UNIT: 3 OOPS

Class - object - Constructors - Destructors - Inheritance - Interface

UNIT: 4 : READING DATA IN WEB PAGES.

Handling text fields - handling checkboxes - Handling Radio button - Handling list box - Reset button - Submit button - Handling password controls - file upload control.

UNIT: 5 SESSION AND COOKIES

Setting a cookie - Reading a cookie - Setting cookies' expiration - deleting cookies - storing data in session - Hit Counter using sessions.

UNIT: VI LATEST LEARNING

latest development related to the course during this semester.

TEXT BOOK

PHP COMPLETE REFERENCE by Steven Holzner, publication 2012, McGraw Hill Education private limited.

25/12/24

12.5.22 VDO - 4hr 'B' | VDO - 4hr 'A'

13.5.22

Setting a Cookie

```
<?php  
setcookie("message", "No worries.");
```

```
?>  
</body>
```

The cookie was set

Go to [a href = "phpgetCookie.php"](phpgetCookie.php)

<phpgetCookie.php> [to read it.](#)

```
</body>
```

Reading a Cookie

```
<?php  
if(isset($_COOKIE["message"]))
```

```
{  
echo $_COOKIECookie["message"];  
}
```

```
?>
```

13.5.22

VDO - 5hr 'B'

Setting Cookies Expiration

```
<?php  
setcookie("message", "No worries  
for 30 days.", time() + 60 * 60 * 24 * 30);
```

```
?>
```

Deleting Cookies

```
<?php  
setcookie("msg", "", time() - 3600);
```

```
?>
```

Cookie was deleted. check that at

[a href = "phpgetCookie.php"](phpgetCookie.php) [phpgetCookie.php](#)
[to read it.](#)

16.5.22

IDO- 1,4 Hr - 'A' 3 Hr - 'B'

Storing data in sessions:

```

<?php
session_start();
if(isset($_SESSION["purchase"]))
{
echo "welcome. you have purchased |".$_SESSION["purchase"]." worth:
".$_SESSION["purchase"]." worth:
}
}
?>

```

~~Hit Counter~~

Hit Counter using Sessions.

```

<?php
session_start();
if(!isset($_SESSION['count']))
{
$_SESSION['count']++;
}
else {
$_SESSION['count']++;
}
echo $_SESSION['count'];
}
?>

```

17/5/22

03/10/22

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LESSON PLAN
 ACADEMIC YEAR
 2021 - 2022
 EVEN SEMESTER

	1	2	3	4	5
I	-	-	-	-	IIT
II	← IIT	→ clab		IIT	-
III	-	IIT	IMSC	-	-
IV	← IIT	→ java lab		IMSC	IIT
V	IMSC	IIT	IMSC	-	-
VI	← IMSC	→ AJAVA lab		IMSC	-

class: I-B.Sc (IT)

code: URRIITAC2

Computer Hardware and Troubleshooting

objectives:

1. To teach the student the basic concept of computer Hardware
2. To impart inbound knowledge about Advantage memory techniques.
3. Learning basic optical storage devices
4. Learning basic Troubleshooting techniques

unit - 1: Introduction to Computer Hardware

Fundamentals of PC Technology:

Building of PC - Principles of CPU

Instruction - Multiprocessor: CPU

operation - Troubleshooting of CPU.

unit - 2: Memory Techniques

Memory: memory works - memory chips and modules - module size and Banks of memory - DRAM Timming and memory types - Advanced memory techniques - Troubleshooting.

unit - 3: magnetic storage devices

Magnetic storage devices: magnetic storage - Harddisk storage device - Floppy disk storage device - cartridge devices - Troubleshooting of magnetic Storage devices.

Unit - 4: optical storage devices

optical storage devices: optical storage media - CD ROM devices - DVD drivers - Recordable drives - Troubleshooting of optical storage devices

Unit - 5; I/O Devices

Keyboards and pointing devices: keyboards - Pointing devices - Video sub systems: video Adaptors - monitors.

Unit 6: Latest Learning (for CIA only)

Latest development related to the course during the semester concerned.

Text Book

PC Hardware - The complete Reference by Craig Zacker and John Rowke, Tata McGraw Hill, 2001 Edition

Unit 1: chap 1 and 2

Unit 2: chap 3

Unit 3: chap 7

Unit 4: chap 8

Unit 5: chap 10 and 11

Reference Book:

Computer Hardware Repair Guide and Hidden Design of Computer Hardware and Software, ISBN 171812449x, Independently Published in 2018.

Video Adaptor - (ICT class)

* Video Adaptor is a circuit that plugs into a PC to give its display capabilities.

* The display capability of a computer is dependent on both computer is dependent on video adaptor and display monitor.

Modes

* There are two types of modes are

- Text mode
- Graphics mode

Types

- Composite
- Component
- S-video
- HDMI
- VGA
- DVI

Monitors

* Monitor is a hardware output device used to provide electronic visual display for computers.

Types of monitor

- CRT Monitor
- LCD Monitor

CRT Monitor

* CRT monitor use as the technology of Cathode Ray Tube

* CRT monitor creating images using stream of electrons.

LCD Monitor:

* LCD monitor is specially designed provide high quality visual display for computers

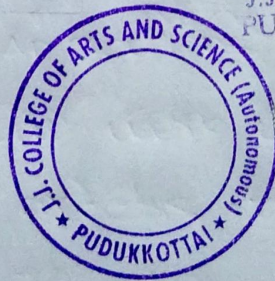
* It uses the technology of "Liquid crystal display" for generating images.

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Software Engineering

unit - i:

Introduction to Software Engineering.

Definitions - size factors - Quality ?

Productivity factors - Managerial issues -

The product - The evolving role of s/w -

s/w characteristics - Appks - The process -

s/w engg: A layered technology - The s/w process - Evolutionary s/w process models - Spiral model.

unit - ii: s/w planning: planning a s/w

project - Defining the pbm - Developing a soln strategy - Planning the devpt process - Planning an organizational structure - other planning activities.

unit - iii: s/w cost estimation & Reqs

Definition

s/w cost estimation: s/w cost factors - s/w cost estimation techniques - staffing level estimation - s/w reqs defn! s/w reqs specification - formal specification Techs.

unit - iv: Design & Implementation tools:

s/w Design: fundamental Design Concepts - Modules & modularization criteria -

Design notation - Design techs - Design Guide lines -

Implementation issues: structured coding techniques - coding style -

Documentation guidelines.

unit - v: testing & validation

main routine & one or two immediately
subroutines in the system structure

- Requires the use of Pgm stubs
to stimulate the effort of lower-
level routines.

Advantages:

1. Top-level interfaces are tested first.
2. Top-level routines provide a natural test harness for lower-level routines.

I.D.
07/12/2024

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SR

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Digital Image Processing

(Sub. Code: P3RIC010)

Unit - I Digital Image Fundamentals

Introduction: Fundamental Steps in Digital Image Processing - Components of an Image Processing System - Elements of Visual Perception - Image Sampling and Quantization

Basic Concepts in Sampling and Quantization

Representing Digital Images - Spatial and Array Level resolution - Basic relationship between pixels - 1D DFT - 2D DFT.

Unit - II Image Enhancement

Basic Array Level Transformations: Image negatives - Log transformation - Power Law transformation - Piecewise - Linear transformation

Functions - Histogram Processing: Histogram Equalization - Histogram Matching - Enhancement using arithmetic/Logic

Operations: Image Subtraction - Image Averaging - Color Image Processing:

Color Fundamentals - Color models

Unit - III Image Restoration.

A model of the image degradation restoration process - Noise Models: Spatial

13/11/21 Revision Learning

1 hr

- Start with a small set of pixels

- then start iteratively merging more pixels.

- Region splitting and merging

16/11/21 Revision (Elements of visual perception)

1 hr

18/11/21 Revision on Types of noises

1 hr

20/11/21 Revision (2019 Question Paper)

1 hr

29/11/21 Revision on Image Restoration

1 hr

1/12/21 Revision on Compression

Unit I - Introduction to Internet

Computers in Business - Networking -
E-mail - Resource sharing - WWW - usenet
- Telnet - Bulletin Board Service - wide
Area Information Service, Internet Technologies:
Modem - Internet Addressing - Physical
Connections - Telephone Lines, Internet
Browsers: Internet Explorer - Netscape
Navigator.

Unit II - Introduction to HTML

Designing a home page - History of HTML
HTML generations - HTML document -
Anchor tag - Hyper Links - Sample HTML
documents. Head and Body Sections: Header
Section - Title - Prologue - Links - Colorful
web page - Comment lines.

Unit III - Designing the Body Section

Header Printing - Aligning the heading.
Horizontal rule - Paragraph - Tab settings -
Images and pictures - Embedding PNG format
images. Ordered and Unordered Lists: Lists
- unordered Lists - Heading in a list -
Listed Lists. Table Handling:

Revision - Unit IV

18/12/21

D-VI

H-IV

- ordered list

- unordered list

- Table tag

- Designing web page using list and table

28/12/21

D-IV

H-II

Revision - Unit V

- Frames

- frameset Set tag

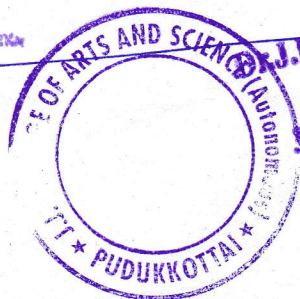
- Frame tag

- Designing web page using frames

S. Sudha 28/12/21

V.D.

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Programming in Java

UNIT - I

OOPS and Java

Introduction to oop - character set - tokens - Constants - Variables - Operators and Expressions - Library Methods - Strings - I/O Statements - Control Statements - If, Switch, while, do, for Statements - Arrays and Methods - one dimensional array - two dimensional array - methods - Method overloading - Recursion.

UNIT - II

Classes, objects and Exception handling

Classes and objects - general form of a class - objects - Constructors - Constructor overloading - This keyword - Finalize Method - Static Methods - Inheritance and Polymorphism - Intensity the variables and methods in class - Exception handling: Default, user defined Exception - try catch, throw statements.

UNIT - III

Interfaces and Packages and Multithreading

Interfaces and Packages: Structure - Implementation

↳ Listeners

↳ Action Listeners

↳ Item Listeners

↳ Mouse Listeners

↳ Methods

↳ Method overloading

↳ Java Database Connectivity

↳ JDBC Basics

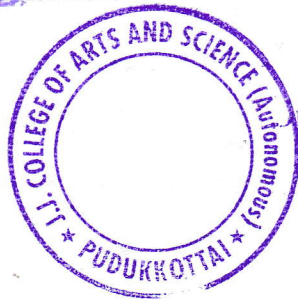
↳ Example Programs

II BSCS
29/12/21
Dayender
IV/8

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2

M. NITHYAKALYANI MEKALA

Notes of Lesson

July 2021 to Nov 2021

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king with
ments - mail
merge.

- spread sheets

ms - Building

m water sheets,

ts, creating and

Computer Applications in Business

Unit I

Meaning of computer - characteristics of computer
- Areas of computer applications - I-P-O cycle
Components of computer - Memory and Control

Unit I - I/O devices Hardware and SW operating

Systems - Introduction to windows 98 logging
on desktop & taskbar Icons on desktop

Start menu option Creation of files and folders.

windows explorer. Find option short cuts - Briefcase

Running applications and customization

Unit II Word 2000

Starting word 2000 creating Short cut for word 2000

Creating word documents - Creating Business letters

using wizards - Editing word documents - inserting

object formatting documents - spelling and grammar

check. - editing word documents - inserting object

formatting documents - spelling and grammar check

word count thesaurus auto correct working with

tables - saving, opening and closing documents - mail merge.

Unit III

Spread sheets

Introduction to spread sheets - spread sheets

Programmes and applications - features - Building

worksheets - entering data in worksheets, creating and

11/12/21

Inventory

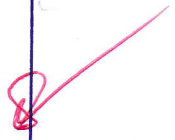
Reports for help

12/12/21

Stock

goto Gateway → Inventory Infn

- Stock groups
- Stock categories
- Stock items
- Unit of Measures
- Godowns
- Voucher types
- Stock
- Single Stock Group
- Multiple Stock Group
- Name
- Under
- Quantities of items to be added



3/12/21

Inr

- Input device
- Output device
- Files, folders

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Director

J. Parasuraman

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Windows
Task bar

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Java Programming

Unit-I OOPS and Java

Introduction to OOPS:- Character set - tokens - constants - variables - operators and expressions - library methods - strings - IO statement - control statements - if, switch, while, do-while, for statements. - Arrays and methods. - One dimensional array - two dimensional array - methods - method overloading - recursion

Unit-II classes, objects and Exception Handling

Classes and objects:- general format a class - objects - constructors - constructor overloading - this keyword - finalizer method - static methods - inheritance and polymorphism - Inheritance and variables and methods in a class - Exception handling - default user-defined exception - try, catch, throw statements.

Unit - III Interface, Packages & Multithreading

Interface and Packages:- structure, implementation of an interface - Packages - Placing the classes in a package - import statement - the java.lang package - the System Object.

Data Input Stream - Data Output Stream

- ✓ Methods
- ✓ Example

File Input Stream - File Output Stream

- ✓ Methods
- ✓ Example

Reader - Writer

- ✓ Methods
- ✓ Example

Database Connectivity

Example program to connect
MS-Access table to Java code

29/11/21
D4/11

Revision of operators in Java
with Example programs.

03/12/21
D5/11/21

Revised Condition statements

- ✓ simple ... if
- ✓ if ... else
- ✓ nested if

Department of Computer Science,

2021 - 2022.

ODD semester

Notes of Lesson.

S.No.	Class	Subject
1.	II. H3c	Network Security
2.	III. Bsc. "C" & "D"	Data Communication & Networks

Staff Name :- NITHYA.S.

D \ H	I	II	III	IV	V
D1	III C	III D			II MSc
D2		III C		II MSc	III D
D3	III C		III D		III C
D4	II MSc		III C	III D	
D5	←	III C Lab	→		III D
D6	II MSc			III C	III D

Date:- 01/12/2021

Day:- 04

Flour:-

Topic:- Virus structure

- Virus Code implementation
- How it works.
- Prevention Techniques
- Sample Coding for creating Virus.

Date:- 3/12/21

Day:- 05

Flour:-

Topic:- Intruders

- Intruder
 - A threat to the system.
- Types:-
 - Masquerader.
 - Misfeasor.
 - Denial of Service.
- Explained with examples.

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Date:- 3/12/21

Day

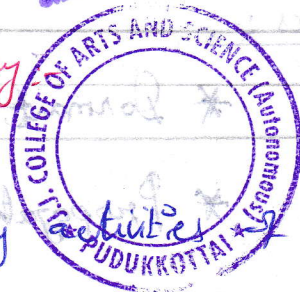
Flour

Topic:- Audit Record

- * Recording day-by-day activities
- * Two Types:-

① Native Audit Record

② Dedicated



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Unit - I .Net Platform

What is ASP.NET? Writing ASP.NET Page - ASP.NET basics: ASP.NET Page structure - view state - working with devices directives - ASP.NET Languages.

Unit - II VB and C# Programming basics.

Programming basics: Control events and Subroutines - Page events variables and variable declaration - Arrays - Functions - operators - Control Logic - Loops - Object oriented Programming Concepts: Object and Classes - Properties and Methods - Classes - Constructors - scope - Events - Inheritance - objects in .NET - Namespace - Using code behind files.

Unit - III Constructing ASP.NET web pages

Web forms - HTML Server Controls - Web Server Controls - web user controls - Master Pages - Cascading Style sheet.

Unit - IV Building web applications and validation controls.

Visual web developer - Core web Application features - Debugging and Error handling. Using the validation controls: Require Field Validator - Compare Validator - Range validator - validation Summary - Regular Expression validator -

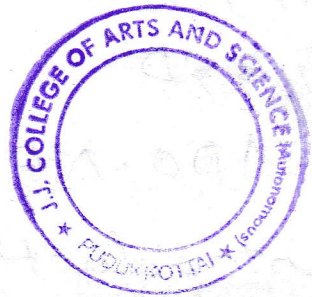
Date: 8/11/21
Class: IV BGD
Topic: ADO.NET and DetailsView

Day order: D1
Hrs: 1st, 3rd

- * Introduction.
- * Example.
- * Row Fields.
- * Binding to Data

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Data operations

V. P. Prasad
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Data Communication and Networks

Syllabus:

Unit I: Introduction

Need to study Data Communications - Data Communications
- Networks - Protocols and Standards - Standards
organizations - Line Configuration Topology - Transmission
Mode - Categories of networks - Internet works.

Unit - II The OSI Model

The Model - Functions of the layers - TCP/IP protocol
suite - Signals: Analog and Digital - Periodic and
Aperiodic signals - Analog signals - Time and Frequency
Domains - Composite Signals - Digital signals.

Unit - III Transmission media

Guided Media - unguided media - Transmission Impairment
- Multiplexing: Many to one/one to many - FDM - TDM
- WDM, Error Detection and Correction - Types of errors
- Detection - Vertical Redundancy check (VRC) -
Longitudinal Redundancy check (LRC) - Cyclic Redundancy
check (CRC) Check sum - Error

Unit - IV Switching

Switching - Circuit Switching
- Time division switches - TDM

- As it encounters each packet, it looks at both the destination and the source addresses. It checks the destination to where to send the packet.

decide

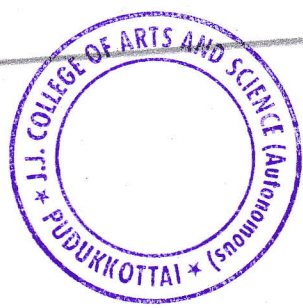
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V.P.

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Course code: U5RICSCC9

UNIT-I: .Net Platform

What is Asp.net? - writing the first

Asp.net Page - Asp.net basics: ASP.net Page

Structure - View State - working with directives -

Asp.net languages.

UNIT-II

VB and C# Programming basics

Programming basics: Control events and

Subroutines - Page events - Variables and variable

declaration - Arrays - functions - Operators -

Conditional logic - Loops - Object oriented

Programming Concepts: objects and classes - Properties

- methods - classes - Constructors - Scope - Events -

Inheritance - Objects in .net - Namespace - Using

Code behind files.

UNIT-III:

Constructing Asp.net web pages

web forms - Html Server controls - Web Server

controls - web user controls - Master pages -

Cascading Style Sheets.

30/11/21.

DA:

Revised GridView control

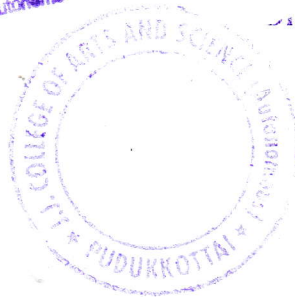
2/12/21: DA.

Revised Asp. Net Page Structure.

4/12/21. DA

S. Sudha Test conducted in Page Structure.
C.D. ✓

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Unit - I

Introduction to operating System

Evaluation of operating System -

Functions - Different views of operating System -

Batch Processing, Multiprocessing, Time Sharing

Operating System - Input/output Programming

Concepts - Interrupt structure & Processing.

Unit - II

Memory Management

Memory Management - Single

Contiguous allocation - Partitioned allocation -

Relocatable Partitions allocations - Page and

Demand Paged memory management -

Segmented memory management - Segmented

and Demand Paged memory management

Overlay techniques - Swapping.

Unit - III

Process Management.

Process Management - Job

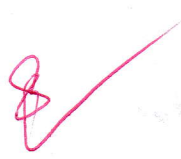
Scheduling - Process scheduling - Functions and

Policies - Evaluation of Round Robin Multi -

Programming Performance - Process Synchronization

23/10/21
Unit. IV
III CS D,C
D.O. II
Hr. 1,4

Device Management
* Techniques for device management
* Physical Devices
* Disk devices
* Virtual devices



26/10/21
III CS D,C
Unit. IV
D.O. III
Hr. 1,2

Input Output Traffic Controller.
* Status of I/O Devices
* Control units
* Communication channels.



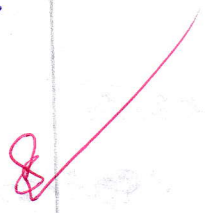
30/11/21
III CS D,C
Unit. IV
D.O. IV
Hr. 4

Control Units
Control Signal
Control bus
Flags
clock.



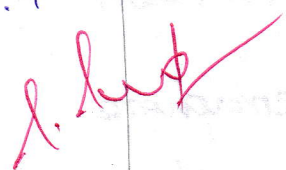
2/12/21
III CS D,C
Unit. IV
D.O. V
Hr. 1,3

Communication Channels:
Request input output status
instruction to IOP
IOP Path.
Memory location



4/12/21
III CS C
Unit. IV
D.O. VI
Hr. 1

Virtual Devices
Network interface Card
Disk Drive
Virtual Box
Virtual Memory techniques.



Unit - I Introduction to operating systems.

Device management - Techniques

Evolution of operating systems - Functions

- Different views of OS - Batch Processing,

multiprocessing, Time sharing OS - I/O

Programming Concepts - Interrupt

Structure & Processing.

Unit - II Memory management

Unit - II Memory management.

Memory management - Single contiguous

Allocation - Partitioned Allocation -

Relocatable Partitions allocations - Paged

and Demand Paged memory management -

Segmented memory management -

Segmented and demand Paged memory

management - Overlay techniques -

Swapping.

Unit - III Processor management.

Processor management - Job scheduling

- Process scheduling - Functions and

Policies - Evolution of Round Robin

multiprogramming Performance -

Process synchronization - wait and

Signal mechanisms - Semaphores P &

V operation - Deadlock - Banker's

Algorithm.

Date: 28/10/21

Class: III D1

Day order: D4

hours: 2

- Important Question revision -

Date: 30/10/21

Class: III B

Day order: D5

hours: 4

- Revision -

Date: 2/11/21

Class: III D1

Day order: D6

hours: 4

Deadly embrace or dead lock:

a) Deadly embrace handling techniques

- * Preallocate all shared resources
- * constrained allocation.

a) controlled allocation

b) standard allocation

1. lock

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recovers

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Credit: 03

Network Security

Hours: 60

Objectives :-

- To learn about Cryptographic Techniques.
- To understand the principles of Security
- To incorporate approaches to network Security.

UNIT - 1 Introduction to Classical Encryption Techniques

The OSI - Security Architecture - Security Attacks
- Security Services - Security Mechanisms - A model of Network Security - Classical Encryption Techniques :-
Symmetric Cipher Model - Substitution Techniques -
Transposition - Rotor Machine - Steganography.

UNIT :- 2 Public Key Cryptography.

Principles of public-key Crypto Systems -
Applications of public Key Cryptosystem - Requirement for public key cryptography - Public key Cryptanalysis
- RSA Algorithm - Description of the Algorithm -
The Security of RSA.

UNIT : 3 Network Security Applications

Electronic Mail Security : Pretty Good Privacy -
PGP Services - Cryptographic Keys & Key Rings -
General format of PGP Message - PGP Msg. Generation -
PGP - Message Reception - RFC-822 - MIME - MIME
Content type - MIME Transfer encoding - S/MIME
functionality - S/MIME Content Types - Cryptographic
algorithms - S/MIME Certificate processing.

UNIT - 4 : Web Security.

Web Security Considerations? Web Security Threats
Secure Socket Layer - SSL Architecture -