

CRITERION 1



SHRIMATI INDIRA GANDHI COLLEGE

Affiliated to Bharathidasan University | Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

1.2.1 ADD-ON AND VALUE ADDED COURSES

SYLLABUS,BROCHURE

SYLLABUS

DEO 01 – FUNDAMENTALS OF COMPUTER

UNIT-1:

Introduction to Computer – Classification of Digital Computer Systems – Computer Architecture – Memory Units - Auxiliary Storage Devices – Input and Output Devices.

UNIT-2:

Introduction to Computer Software - Operating System -Introduction to Windows - Word Processing - Basic Capabilities of Word Processing - Advanced Features of Word Processors – Case Study - Ms-Word.

UNIT-3:

Electronic Spreadsheets - Case Study - Ms-Excel Data Base Management Systems - Data Processing - Introductions Data Base Management System - Data Base Design - Case Study - Ms-Access.

UNIT-4:

Presentation Software – Presentation Basics - Case Study -Ms-Power Point - Programming Languages - General Software Features and Trends.

UNIT-5:

Internet and World Wide Web - Introduction to Internet Explorer - Electronic Mail - Case Study - Ms-Outlook - Applications of Computers Home Education Add Training and In Business and Industry.

Text book:

Alexis Leon, Mathews Leon, Computers for Everyone, Leon Vikas.

Reference:

Alexis Mathews Leon, Fundamentals of information technology-Leon TECH Word.

SYLLABUS

DEO 02: FOXPRO PROGRAMMING:

Introduction To FoxPro Programming – Menus – Table Creations –
Structuring Field Types – Simple Programs – FoxPro Data Types –
Assignment And I/O Operators – Control Statements – Handling Databases –
Functions – Working With FoxPro SQL.

Introduction To Visual FoxPro – Creating Forms, Reports.

DEO 03- OFFICE AUTOMATION LAB

MS-WORD

1. a) Text Manipulation – Change the font size and type - Aligning and justifications of text-underlining the text-indenting the text.
 - (i) Prepare a Bio-data
 - (ii) Prepare a Letter
 - b) Usages of Numbering, Bullets, Footer and Headers.
-
2. Usages of spell check and find and replace
 - a) (i) Prepare a document in Newspaper Format
 - (ii) Prepare a table manipulation
 - b) (i) Creation of mark list
 - (ii) Creation of calendar
-
2. a) (i) insert a picture
 - (ii) Prepare a greeting card
- b) (i) create a bio-data and letter using Templates
 - (ii) Prepare an invitation letter using mail merge.

MS-EXCEL

1. a) Usage of format and Built in Functions.
 - (i) Type of Functions
 - (ii) File Manipulation
 - (iii) Data sorting and Grouping
- b) (i) Prepare a Worksheet
- (ii) Graph Drawing

2. a)(i) Prepare a playbill
(ii) Prepare a inventory report
(iii) Prepare a invoice report
- b) Draw a graph.

MS-POWER POINT

- 1) Insert a picture from clipart
- 2) (i) Create a seminar
(ii) Create an Organization Chart
(iii) Create a Birthday Invitation.
- 3) Insert a picture from a file.
- 4) (i) Prepare a Text Attributes.
(ii) Prepare a Bar Chart.

DEO 04: FOXPRO PROGRAMMING LAB:

1. Preparing Students Mark List
2. Inventory Control Program
3. Payroll Processing
4. Invoice Preparation
5. Electricity Bill Preparation

1997-98 onwards.

RCFEI

ITEM NO: 28

ANNEXURE NO: XVI

SARATHIDASAN UNIVERSITY: TIRUCHIRAPPALLI-24.

Certificate course in Functional English

REVISED SYLLABUS

(For the candidates admitted from the academic year 1997-98 onwards)

PAPER-I	ORAL COMMUNICATION IN ENGLISH	RCFEI
	Hours of Teaching : 40	
	Marks:	
	Theory : 60	
	Vivavoce : 40	
		100
PAPER-II	ELEMENTS OF GRAMMAR	RCFE2
	Hours of Teaching : 40	
	Total Marks	100
PAPER-III	ENGLISH FOR COMPETITIVE EXAMINATIONS	RCFE3
	Hours of Teaching : 40	
	Total Marks	100
	Grand Total	300



BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI – 620 024
POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS
SUBJECT OF STUDY AND SCHEME OF EXAMINATION

(For the candidates to be admitted from the academic year 2016-2017 onwards)

Title	Instruction Hours	Practical Hours	Exam Hours	Marks		Total
				IA	UE	
Semester – I						
Paper – I – Programming with C++	7	-	3	25	75	100
Paper – II – Operating Systems	7	-	3	25	75	100
Paper – III – Computer Organization and Architecture	7	-	3	25	75	100
Paper – IV – C++ Programming Lab	-	5	3	40	60	100
Paper – V – Shell Programming Lab	-	4	3	40	60	100
Semester – II						
Paper – VI Programming in Java	7	-	3	25	75	100
Paper – VII – Data Base Systems	7	-	3	25	75	100
Paper – VIII Computer Graphics	7	-	3	25	75	100
Paper – IX – Java Programming Lab	-	5	3	40	60	100
Paper – X – Database Systems Lab	-	4	4	40	60	100

The Internal and External Marks to be awarded for any **Practical Course** is **40 & 60** respectively and for **Theory course**, it is **25 & 75** respectively for MCA, M.Sc (CS), M.Sc (IT) & PGDCA.

Note:

1. Theory Internal 25 marks External 75 marks
2. Practical ” 40 marks ” 60 marks
3. Separate passing minimum is prescribed for Internal and External
 - a) The passing minimum for CIA shall be 40% out of 25 marks (i.e. 10 marks)
 - b) The passing minimum for University Examinations shall be 40% out of 75 marks (i.e. 30 marks)
 - c) The passing minimum not less than 50% in the aggregate.

PAPER I
PROGRAMMING WITH C++

Objective :

To impart Object Oriented Programming skills using C++

Unit I

What is Object Oriented Programming? – C++ Console I/O- C++ comments- Classes: Some difference between C and C++ - Introducing Function Overloading - Constructor and Destructor Functions- Constructors take parameters- Introducing Inheritance – Object Pointers – In line Functions – Automatic in lining.

Unit II

Assigning Objects – Passing Object to Functions – Returning Object from Functions- An Introduction to friend functions- Arrays of objects – Using Pointers to Objects – Using new & delete – More about new & delete – references – Passing references to objects - Returning references- Independent References and restrictions.

Unit III

Overloading Constructor Functions- Creating and Using a Copy constructor- Using default arguments- Overloading and ambiguity – Finding the address of an overload function- the basics of operator overloading- overloading binary operators-overloading the relational and logical operators- overloading a Unary operator – using friend operator functions- a closer at the assignment operator- overloading the subscript() operator.

Unit IV

Base class access control –using protected members- Constructors, destructors and inheritance - multiple inheritance- virtual bas classes- Some C++ I/O basics- formatted I/O using width(), precision () and fill() – using I/O manipulators- Creating your own inserters- creating extractors.

Unit V

Creating your own manipulators- File I/O basics- unformatted, binary I/O- more unformatted I/O functions- random access- checking the I/O status- customized I/O and files- Pointers and derived classes- Introduction to virtual functions- more about virtual functions- applying polymorphism- Exception handling.

Text Book(s)

Herbert Schildt, “Teach Yourself C++”, III edition, Tata McGraw Hill 5th Reprint 2000.

Reference(s)

1. Bjarne Stroustrup, The C++ Programming Language, Addison wesley,2013
2. E. Balagurusamy “Object Oriented Programming with C++ “, TMH New Delhi,2013
2. Robert Lafore, “Object Oriented Programming in Turbo C++”, Galgotia 2001

PAPER II

OPERATING SYSTEMS

Objective :

To present fundamental aspects of various managements in an operating

Unit I

Operating Systems Objectives and functions – Operating System and User /Computer Interface, Operating System as a Resource Manager: Evaluation of Operating Systems – Serial Processing, Sample Batch Systems, Time Sharing Systems.

Unit II

Process Description, Process Control – Processes and Threads. Concurrency – Principles of Concurrency, Mutual Exclusion – Software support, Dekker's Algorithm – Mutual Exclusion – Hardware support, Mutual Messages – Deadlock – Deadlock prevention, Deadlock Detection, Deadlock Avoidance – An Integrated deadlock Strategy.

Unit III

Memory Management – Memory Management Requirements – Fixed Partitioning, Placement Algorithm, Relocation in a Paging System – Sample Segmentation. Virtual Memory – Paging – Address Translation in a Paging System. Segmentation – Organization, Address Translation in a Segmentation System – Combined Paging and Segmentation – Virtual Memory – Operating System Software – Fetch Policy, Placement Policy and replacement Policy, Page buffering resident set Management.

Unit IV

Scheduling – Types of Scheduling, scheduling Algorithms, scheduling criteria, FIFO, Round Robin, Shortest Process next, Shortest Remaining Time, Highest response ratio and Feedback scheduling Performance comparison – Fair – Share Scheduling. I/O Management and disk scheduling – Organization of the I/O function – the Evaluation of the I/O function, Logical structure of the I/O function, I/O Buffering, Disk Cache.

Unit V

File Management – Files, File Management Systems, File System Architecture, Functions of File Management File Directories – File Sharing – Secondary Storage Management – File allocation.

Text Books

1. William Stallings, “Operating Systems”, Second edition, Maxwell McMillan, International Editions, 1997.
2. Charles Crowley, “Operating Systems-A Design Oriented Approach”, IRWIN Publications Chicago, 1997.

References

1. Ann McIver McHoes and Ida M. Flynn, Understanding Operating Systems, Sixth Edition, Course Technology, Cengage Learningm2011
2. Ann McHoes, Ida M. Flynn ,**Understanding Operating Systems, Seventh Edition**, Cengage Learning, 2013.
3. Deital H.M. “An Introduction to Operating Systems”, Addison Wesley Publishing

PAPER III
COMPUTER ORGANIZATION AND ARCHITECTURE

Objective:

To understand the principles of digital computer logic circuits and their design. To understand the working of a central processing unit architecture of a computer

Unit I

Number Systems – Decimal, Binary, Octal and Hexadecimal Systems – Conversion from one system to another – Binary Addition, Subtraction, Multiplication and Division – Binary Codes– 8421, 2421, Excess-3, Gray, BCD – Alphanumeric Codes – Error Detection Codes.

Unit II

Basic Logic Gates – Universal Logic – Boolean Laws and Theorems – Boolean Expressions – Sum of Products – Product of Sums – Simplification of Boolean Expressions –Karnaugh Map Method (up to 4 Variables) – Implementation of Boolean Expressions using GateNetworks.

Unit III

Combinational Circuits – Multiplexers – Demultiplexers – Decoders – Encoders – Arithmetic Building Blocks – Half and Full Adders – Half and Full Subtractors – Parallel adder –2’s Complement Adder – Subtractor – BCD Adder.

Unit IV

Sequential Circuits – Flip Flops – RS, Clocked RS, D, JK, T and Master-Slave Flip Flops –Shift Register – Counters – Asynchronous, MOD-n and Synchronous Counters – BCD Counter –Ring Counter.

Unit V

Central Processing Unit: General Register Organization – Stack Organization – Instruction Formats – Addressing Modes – Data Transfer and Manipulation – Program Control – Reduced Instruction Set Computer – CISC characteristics – RISC Characteristics.

Text Books:

1. Donald P. Leach, Albert Paul Malvino and GoutamSaha, *Digital Principles and Applications*, TataMcGraw Hill, Sixth Edition, Third Reprint, 2007.
Unit:I : Chapter-5 Section (5.1-5.8)
Unit:II : Chapter-2 Section (2.1-2.2), Chapter-3 Section (3.1, 3.2, 3.5, 3.7)
Unit: III: Chapter-4 Section (4.1-4.3, 4.6), Chapter-6 Section (6.7, 6.8)
2. Thomas C. Bartee, *Digital Computer Fundamentals*, Tata McGraw-Hill, Sixth Edition, Twenty FifthReprint, 2006.
Unit:III : Chapter-5 Section (5.1, 5.3, 5.10, 5.11)
Unit:IV : Chapter-4 Section (4.1-4.9)
3. Morris Mano M, *Computer System Architecture*, Prentice Hall of India, Third Edition,2008.
Unit: I: Chapter-3 Section (3.5-3.6)
Unit: V: Chapter-8 Section (8.2-8.8)

Books for Reference:

1. Morris Mano. M, *Digital Logic and Computer Design*, Prentice Hall of India, 2008.
2. Linda Null, Julia Lobur, *The Essentials of Computer Organization and Architecture*, Fourth Edition2014

PAPER IV

C++ Programming Lab (Applied to Data Structures and Algorithms)

Objective:

To get hands on experience in developing Programs using C++ for Data Structures applications.

1. Implement Array Merging, sorting of array elements [Integer elements & character Elements]
2. Implement sorting of array of English words (in Dictionary order)
3. Implement Stack Data Structures and Operations on it (push, pop)
4. Implement Singly linked list Data structure and operations on it (insert, delete, print, navigate, search)
5. Implement sorting operation on a singly linked list data structure
6. Implement doubly linked list data structure and operations on it (insert, delete, print, navigate, search)
7. Implement Sorting operation on a doubly linked Data Structure
8. Implement Queue Data Structure and operations on it
9. Implement table Data structure and operations on it (insert, delete, print, navigate, search)
10. Implement binary tree data structure and operations on it (node insertion, deletion)
11. Implement pre-order, in-order, post-order traversal of binary tree and print node contents

PAPER V

SHELL PROGRAMMING LAB

Objective:

To get hands on experience in developing Shell Programs.

Write Shell Programs to

1. Find whether number given is even or odd
2. Reverse the digits of the integer
2. Search for a given number from the list of numbers provided using binary search method
3. Concatenate two strings and find the length of the resultant string
4. Find the position of substring in given string
5. Find the gcd for the 2 given numbers
6. Check whether a given string is palindrome or not.
7. Count number of words, characters, white spaces and special symbols in a given text
8. Sum of all the digits in a given 5 digit number
9. Average of numbers given at command line
10. Accept a file name, starting and ending line numbers as arguments and displays all the lines between the given line numbers.
11. Delete all lines containing a specified word in one or more files supplied as arguments to it.
12. Display a list of all files in the current directory to which the user has read, write and execute permissions.
13. Receive any number of file names as its arguments, checks if every argument supplied is a file or a directory and reports accordingly. Whenever the argument is a file, the number of lines on it is also reported.
14. Receive any number of file names as its arguments, counts and reports the occurrence of each word that is present in the first argument file on other argument files.

PAPER VI

PROGRAMMING IN JAVA

Objective :

To Impart sound knowledge in Object Oriented Programming skills in JAVA

UNIT I

An overview of Java – Java Buzzwords- Data Types, Variables and Arrays - Operators – Control Statements- Introducing Classes: Class Fundamentals – Declaring Objects – Introducing Methods – Constructors – The this keyword – Garbage Collection – Overloading Methods – Call by value, Call by reference – Recursion- Understanding static – final – Nested and Inner classes.

UNIT II

Inheritance: Inheritance Basics – Using super – Method overriding –Dynamic Method Dispatch- Using Abstract Classes - Final with Inheritance- Object class. Packages and Interfaces:Declaring Packages – #Access Protection# – Importing Packages – Defining, Implementing, Applying Interfaces - Exception Handling: Exception Types – try, catch – throw – throws – finally –multiple catch and nested try statements- Creating User-defined Exception classes.

UNIT III

Multithreaded Programming: The Java Thread Model – Creating a Thread –Creating Multiple Threads-Thread Priorities- Synchronization – #Inter-thread communication. String Handling# –The Collection Interfaces and Collection Classes: List,Set,Map,Enumeration and Iterator interfaces-ArrayList, LinkedList, Vector, Stack,Properties,HashTable, StringTokenizer, and Date classes.

UNIT IV

Files and IO Streams: File – The Byte Streams: InputStream, Output Stream, FileInputStream,FileOutputStream, PipedInputStream and PrintStream – The Character Streams: Reader, Writer. FileReader and FileWriter – Serialization. Networking- Networking classes and interfaces: InetAddress class -TCP/IP Client and Server sockets–Datagrams – URL and URLConnection classes.

UNIT V

Introduction to Applet class- Applet Architecture- The HTML APPLET tag – Passing parameters to Applets – Event handling: The Delegation Event Model, Event Classes, Event Listener Interfaces - Working with Graphics, Color and Font classes - Understanding Layout managers- Swing Component classes: JApplet, JFrame and JDialog - Text Fields, Buttons, Combo boxes, List ,Tabbled and Scroll Panes.Understanding Layout managers.

Text Book:

1. Herbert Schildt, *The Complete Reference Java 2*, Fifth Edition, TMH Education Pvt. Ltd.,2009.
UNIT I : Chapter 1 to 7
UNIT II : Chapter 8 to 10
UNIT III : Chapter 11,13, and 15, 16
UNIT IV : Chapter 17 and 18
UNIT V : Chapter 19 to 22, and 26

Books for Reference:

1. Herbert Schildt with Joe O' Neil, *Java – Programmer's Reference*, TMH, 2000.

PAPER VII

DATABASE SYSTEMS

Objective:

To impart knowledge about relational database and distributed database.

Unit I

Introduction – purpose of database systems – Data Abstraction – Data models – Instances and schemes – Data independence – DDL – DML – Database users – ER model – Entity sets – Keys – ER diagram – relational model – Structure – Relations Algebra – Relational Calculus – Views.

Unit II

SQL – QBE – QUEL – Basic structure – various Operations – Relational database design problems in the relational data base design – Normalisation – normalization using functional, Multi value and join dependencies.

Unit III

File and system structure – overall system structure – file Organization – data dictionary – Indexing and hashing – basic concept B and B+ tree indices – Static and Dynamic hash functions.

Unit IV

Recovery and atomicity – failures classification and types – Transaction model and Log based recovery, schedules – serial and non-serial types – Serialization of schedules and views – testing for seriability – lock based protocols – time based protocols – validation techniques – multiple Granularity – multiversion schemes – insert and delete Operations.

Unit V

Distributed data bases – structure of distributed databases – Trade offs in Distributing the database – Transparency and autonomy – distributed query processing – recovery in distributed systems – commit protocols – security and integrity violations – authorization and views – security specification – encryption – Statistical databases.

Text Book(s):

Henry F.Korth, and Abraham Silberschatz,,Sudarshan “Database system Concepts”, McGraw Hill, 4th Edition, 2002

References:

1. Hector Garcia Molina, Jeffrey D Ullman, JenniferWisdom,Database Systems: The Complete Book., Pearson Education 2013.
- 2.Pipin C. Desai, “An Introduction to data base systems”, Galgotia Publications Private Limited, 1991.
3. C.J. Date, “An Introduction to Database Systems”, 3rd Edition, Addison Wesley 1983.

PAPER VIII

COMPUTER GRAPHICS

Objective:

To present concepts on basic graphical techniques, raster graphics, two dimensional and three dimensional graphics.

Unit I

A survey of computer graphics – Overview of Graphic systems- output primitive (Mathematical functions for creating graphic output) – setting attribute of Output primitives

Unit II

Two dimensional geometric transformations – Two dimensional viewing

Unit III

Graphic structures – Hierarchical modeling – Graphical user interfaces and interactive input methods

Unit IV

3D Concepts – 3D- object Representation – 3D Geometric and Modeling Transformations.

Unit V

Visible surface detection methods – Illumination models – Computer Animation

TEXT BOOK:

1. **Hearn Donald, Baker Paulin M.**, Computer graphics – C version, Second edition, Pearson education, 2006. (ISBN 81-7758-765-X)

REFERENCE BOOK:

1. Rajiv Chopra, Computer Graphics: A Practical Approach, Concepts, Principles, Case Studies, S Chand 2011.
2. **Newman William M., & Sproull Robert F.**, Principles of interactive computer graphics, Second edition, Tata –McGraw Hill, 1 (ISBN 0-07-463293-0)
3. Fundamentals of Computer Graphics, Peter Shirley, Michael Ashikhmin, Steve Marschner, 2009

PAPER IX

JAVA PROGRAMMING LAB

Objective: To get hands on experience in developing Programs using Java.

1. Assume that a bank maintains 2 kinds of account for its customers' one called savings account and the other current account' The savings account provides compound interest and withdraw facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account falls below this level a service charge is imposed. Create a class Account that stores customers name' account number and type of account. From this derive the classescurr-acct and sav-acct to make them more specific to their requirements. Introduce the necessary methods in order to achieve the following tasks:
 - a. Accept deposit form a customer and update the balance.
 - b. Display any deposit interest
 - c. Compute and deposit interest.
 - d. Permit withdrawal and update the balance.
 - e. Check for the minimum balance' impose penalty' if necessary and update the balance.
2. Use constructors and methods to initialize the class members.
Write a program that accepts a shopping list of five items from the command line and stores them in a vector and accomplish the following:
 - a. To delete an item in the list.
 - b. To add an item at a specified location in the list.
 - c. To add an item at the end of the list.
 - d. To print the contents of the vector.
3. Implementation of the concept of multiple inheritance using interfaces and design a package to contain the class students and another package to contain the interfaces sports.
4. Develop a simple real-life application program to illustrate the use of multithreads.
5. Create a try block that is likely to generate three types of exception and then incorporate necessary catch blocks to catch and handle them appropriately.
6. Write a Java applet' which will create the layout below:
FORMAT
Enter your Name:
Enter your Age:
Select City: *Delhi *Madras
Select SIW: *Oracle *Visual Basic *Java
OK CANCEL
Handle the following simple validations.
The name entered should be less than 25 characters wide.
Age entered should be done as the user exits the fields as well as when OK button is pressed. Hint use the Boolean action (Event evt' object arg).
7. Write an Applet which will play two sound notes in a sequence continuously use the play () methods available in the applet class and the methods in the Audio clip interface.

2016-2017

P.G. Diploma in E-Commerce

SUBJECT OF STUDY AND SCHEME OF EXAMINATION

(For the candidates to be admitted from the academic year 2001 – 2002 onwards)

Title	Instruction	Practical	Exam	Marks		Total
	Hours	Hours	Hours	IA	UE	
SEMESTER - I						
PGDEC.1						
Paper – I Principles of E-Commerce	5.4	-	3	25	75	100
Paper – II Object Oriented Programming Using C++ (PGDEC.2)	5.4	-	3	25	75	100
PGDEC.3						
Paper – III Organisational Behaviour	5.4	-	3	25	75	100
Paper – IV Programming Lab – I PC Packages Lab (PGDEC.4P)	-	5	4	25	75	100
Paper – V Programming Lab – II Object Oriented Programming Lab (Based on II) (PGDEC.5P)	-	5	4	25	75	100
SEMESTER – II						
PGDEC.6 (2)						
Paper – VI Java Programming	5.4	-	3	25	75	100
PGDEC.7						
Paper – VII Mobile & Business Communications (2)(1)	5.4	-	3	25	75	100
Paper – VIII Elective (Any one) (PGDEC.8)	5	-	3	25	75	100
(a) WAP & XML						
(b) Communication Networks						
(c) COM/DCOM (2)						
(d) Entrepreneurial Development (3)	4					
(3)						
Paper – IX Accounting Procedures and Practices (PGDEC.9)	5.4	-	3	25	75	100
(PGDEC.10P)						
Paper – X Programming Lab – III Java and Accounting Packages Lab	-	5	4	25	75	100

Theory - 200
Labs - 24

PAPER X

DATABASE SYSTEMS LAB

Objective:

To get hands on experience in developing queries and designing forms using RDBMS software..

1. SQL - Data Definition Language
 - Table Creation with Constraints
 - Table Alteration (Add Column, Modify size and data type, Drop Column)
 - Drop Table
2. SQL - Data Manipulation Language
 - Data Insertion
 - Data Updation
 - Data Deletion
 - Ordering Tuples
 - Tuple Variable
 - Pattern Matching
 - Build-in Function
 - Set Operations
 - Join Operations
 - Nested Subqueries
 - Views
3. PL/SQL Procedure
 - 3.1 Reverse the string.
 - 3.2 Delete any record and count it.
 - 3.3 Student Mark Sheet Preparation
 - 3.4 Pay Roll preparation.
 - 3.5 Excess record stored in separate files.
 - 3.5 Split a table in to two tables.
 - 3.6 Joining two tables in to one table.
 - 3.7 Find factorial number using recursive function.
 - 3.8 Find Fibonacci series using recursive function.
4. SQL Forms
 - Student Mark System
 - Pay Roll Preparation
 - Income Tax Calculation
 - Train Reservation System

Semester - I
Paper - I
Principles of E-Commerce

Unit - I

Introduction : Electronic commerce Frame work - The anatomy of E-commerce Applications - Electronic Commerce Consumer Applications - Electronic Commerce Organisation Applications - The Network Infrastructure for Electronic Commerce : Components of the Highway - Network Access Equipment - Global Information Distribution Networks.

Unit - II

The Internet as a Network Infrastructure : The Internet Terminology Chronological History of the Internet - NSFNET - Architecture and Components - Globalization of the Academic Internet - **The Business of Internet Commercialization :** Telco / Cable / Online Companies - National Independents ISPs - Regional Level ISPs - Local Level ISPs - Internet Connectivity Options.

Unit - III

Network Security and Firewalls : Client Server Network Security - Firewalls & Network Security - Data & Message Security - Challenge Response System - **Electronic Commerce & World Wide Web :** Architectural Framework for Electronic Commerce - Technology Behind the Web - Security - **Consumer Oriented Electronic Commerce :** Consumer Oriented Applications - Mercantile Models from the Consumers Perspective.

Unit - IV

Electronic Payment System : Types of Electronic Payment Systems - Digital Token Based Electronic Payment Systems - Smart Card & Electronic Payment Systems - Credit Card Based Electronic Payment Systems - Risk & Electronic Payment Systems - Designing Electronic Payment Systems - **Inter Organisational Commerce & EDI :** Electronic Data Interchange - **EDI Implementation, MIME, and Value Added Networks :** EDI Software Implementation - EDI Envelope for Message Transport.

Unit - V

Advertising and marketing on the Internet : The New age of Information Based Marketing - Advertising on the Internet - Charting the Online Marketing Process - **Consumer Search and Resource Discovery :** Information search and Retrieval - Electronic Commerce Catalogues or Directories - Information Filtering - Consumer Data Interface Emerging Tools - Computer Based Education and Training - **Software Agents:** Characteristics and Properties of Agents - The Technology Behind Software Agents - Applets, Browsers and Software Agents.

Text Book :

"Frontiers of Electronic Commerce", Ravikalakota & Andrew Whinston, Addison Wesley, 2000.

Reference Book:

"Electronic Commerce", Pete Loshin, & Paul A. Murphy, 2nd ed, Jaico Publishing House, 2000.

Semester - I
Paper - II
Object Oriented Programming Using C++

Unit - I

Principles of Object – Oriented Programming (OOP) : Software Evolution - OOP Paradigm - Basic Concepts of OOP - Benefits of OOP - Object Oriented Languages - Applications of OOP.

Unit - II

Introduction to C++ : Tokens Keywords, Identifiers, Variables, Operators, Manipulators, Expressions & Control Structures in C++.

Functions in C++ : Main Function - Function prototyping - call by reference Return by Reference - Function Overloading - Friend and Virtual Functions.

Unit - III

Classes and Objects : Constructors and Destructors and Operator Overloading and Type Conversions.

Unit - IV

Inheritance : Single Inheritance - Multilevel Inheritance - Multiple Inheritance - Hybrid Inheritance.

Pointers, Virtual Functions and Polymorphism : Managing Console I/O Operations.

Unit - V

Working with Files : Classes for Files Stream Operations - Opening and Closing a File - End - of - file Deduction File Pointers - Updating a File - Error Handling during File Operations - Command - Line Arguments.

Templates and Exception Handling: Class Templates - Function Templates - Member Function Templates - Template Arguments - Exception Handling.

Text Book :

1. "Object Oriented Programming with C++", E. Balagurusamy, Tata McGraw-Hill Publishing Company Limited, 2000.

Reference Books :

1. "C++ The Complete Reference" Herbert Schildt, Osborne, 2nd Edition, McGraw - Hill, 1999.
2. "C++ from the Ground up", Herbert Schildt - Osborne, McGraw-Hill, 1999.
3. "Programming with C++ Schaum Series", Hubbard, McGraw - Hill, 1999

Semester - I
Paper - III
Organisational Behaviour

Unit - I

Nature of Organisational Behaviour - Nature of Human Behaviour
- Perception - Learning - Behaviour Modification.

Unit - II

Personality - Attitudes - Motivation - Socio Culture Factors and
Behaviour.

Unit - III

Stress - Interpersonal Behaviour - Group Dynamics - Power,
Authority and Politics

Unit - IV

Leadership - Communication - Organisational Conflicts -
Organisation Theory.

Unit - V

Organisation Structure - Design, Forms, Bureaucracy -
Organisational climate - Organisational Effectiveness and change.

Text Book :

"Organisational Behaviour"- L.M. Prasad - Sultan Chand & Sons.
III Edition :2000

Reference Books :

1. "Organisational Behaviour"- V.S.P. Rao and P.S. Narayana, Konark Publishers, II Rev. Ed. 1987.
2. "Organisational Behaviour", Aswathappa, Himalaya Publishers, V Ed.2000.

Semester - I
Paper - IV
Programming Lab - I
PC Packages Lab

Ms - Word

1. Different styles of Letter
2. Different types of Resume
3. Table Processing
4. Mail Merge
5. Preparation of Greeting cards

Ms - Excel

1. **Work sheet Preparation**

- a) Mark Sheet
- b) Pay roll
- c) Billing
 - Inventory Report
 - Invoice Report
 - Electricity Bill Preparation

2. **Preparation of Graph**

MS-Power Point

Preparation of slides show and Advertisement

Semester - I
Paper - V
Programming Lab - II

Object Oriented Programming Lab
(Based on II)

I. USING FUNCTIONS

- ✓ a. ✓ Write a function in C++ to generate a Fibonacci series of n numbers
- ✓ b. ✓ Develop a program in C++ to find the largest of any 3 numbers using Macro definition.
- ✓ c. ✓ Write a function called zeroSmaller() that passes two int arguments, by reference and then sets the smaller of the two numbers to 0. Write a main() program to exercise this function.
- Call by Ref*

II. USING CLASSES

- ✓ a. ✓ Create a class that imitates part of the functionality of the basic data type int. Call the class Int (note different spelling). The only data in this class is an int variable. Include member functions to initialize an int to 0, to initialize it to an int value, to display it (it looks just like an int), and to add two int values.
Write a program that exercises this class by creating two initialized and one uninitialized int values, adding these two initialized values and placing the response in the uninitialized values, and then displaying this result.
- Initialization*
- ✓ b. ✓ Create a class called time that has separate int member data for hours, minutes, and seconds. One constructor should initialize data to 0, and another should initialize it to fixed values. A member function should display it, in 11.59.59
- Time*

format. The final member function should add two objects of type `time` passed as arguments.

A `main()` program should create two initialized `time` objects, and one that isn't initialized. Then it should add the two initialized values together, leaving the result in the third `time` variable. Finally it should display the value of this third variable.

Develop an object oriented program in C++ to read the following information from the keyboard:

- a. Employee name
- b. Employee code
- c. Designation
- d. Years of experience
- e. Age and

Construct an object oriented data base to carry out the following methods:

- a. build a master table
- b. list a table
- c. insert a new entry
- d. delete old entry
- e. edit an entry
- f. search for a record that to be printed
- g. sort entries

III. USING POLYMORPHISM

Create a base class called `shape`. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called `triangle` and `rectangle` from the base `shape`. Add to the base class, a member function `get_data()` to initialize base class data members and another member

area() as a virtual function and redefine this function in the derived classes to suit their requirements.

Using these three classes design a program that will accept dimensions of a triangle or rectangle interactively and display the area.

IV. USING INHERITANCE

- a) Develop an object oriented program in C++ to create a data base of the following items of the derived class.
- name of the patient
 - sex
 - age
 - ward number
 - bed number
 - nature of the illness
 - date of admission

Design a base class consisting of the data members namely, name of the patient, sex and age. Another base class consists of ward numbers, bed number and nature of the illness. The derived class consists of the data member date of admission. Design a virtual class for the data member, namely, name of the patient, sex and age.

- b) Create a generic base class called building that stores the number of floors a building has, the number of rooms, and its total square footage. Create a derived class called house that inherits building and also stores the number of bedrooms and the number of bathrooms. Next, create a derived class called office that inherits building and also stores the number of fire extinguishers and the number of telephones.

V. USING OVERLOADING

9. ✓ Write a program in C++ using function overloading to read two matrices of different data types such as integers and floating point numbers. Find out the sum of the above two matrices separately and display the total sum of these arrays individually.
11. b. ✓ Create a class FLOAT that contains one float data member. Overload all the four arithmetic operators so that they operate on the objects of FLOAT.

VI. USING CONSTRUCTORS & DESTRUCTORS

12. ✓ Write an object oriented program in C++ to read an integer number and find the sum of all the digits until it reduces to a single digit using constructors, destructor, default constructor and inline member functions.

VII. USING POINTERS

13. a. ✓ Write a C++ program to find out the number of vowels in each word of a given text using a pointer
14. b. ✓ Write a C++ program to check whether the given string is a palindrome or not using the pointer method.

VIII. USING FILES

15. a. ✓ Write a C++ program to read a file and display the contents of the file on the screen with line numbers.
16. b. ✓ Write a C++ program to merge two files into a one file heading.
- c. Case studies :
17. i. ✓ Paybill Preparation (18)
18. ii. ✓ Marklist Preparation

IX. USING EXCEPTION HANDLING

19. ✓ Create a generic function that returns the mode of an array values.

Semester - II
Paper - VI
Java Programming

Unit - I

Data Types And Variables : The Simple Types - Literals - Variables - Type Conversion and Casting - Automatic Type Promotion in Expressions - Arrays - Strings - **Classes And Methods** : Class Fundamentals - Declaring Class Objects - Constructors - Garbage Collection - The finalize () Method - Overloading Methods - Argument Passing - Recursion - Understanding Static - Access Control - The main() Method.

Unit - II

Operators : Arithmetic Operators - Bit wise Operators - Relational Operators - Boolean Logical Operators - The Assignment Operator - The ? Operator - The Dot Operator - Operator Precedence.- **Inheritance, Packages, And Interfaces** : Inheritance - Using Super - When Constructors Are Called - Method Overriding - Abstract Classes - The final Keyword - Packages - Importing Packages - Access Control - **Interfaces** - Keyword Summary

Unit - III

The Language Classes and Interfaces - The Utility Classes and **Interfaces** - The Input / Output Classes and Interfaces

Unit - IV

The Networking Classes and Interfaces - The Java Applet Class and **Interfaces**

Unit - V

The Abstract Window Toolkit Classes and Interfaces - The Event Classes and Interfaces

Text Book :

"Complete Reference", Patrick Naughton and Herbert Schildt, Tata McGraw Hill Publishing Company Ltd, 1999 3rd Edition.

Reference Books :

1. "Internet Programming", Kris James Ph.D, and Ken Cope, Galgotia Publication, Reprint 2000.
2. "Java Unleashed", Michael Morrison, Second Edition.
3. "Java - Programmer's Reference", Herbert Schildt with Joe O'Neil, Tata McGraw Hill, 1998.

Semester - II
Paper - VII
Mobile & Business Communications

Unit - I

Introduction: Applications - A market for mobile communications - some open research topics - A simplified reference model .WIRELESS TRANSMISSION: Frequencies for radio transmission - signals - Antennas - signal propagation - Multiplexing - Modulation - spread spectrum - cellular systems.

Unit - II

Medium Access Control: Motivation for a specialized MAC - SDMA -FDMA - TDMA -CDMA - Comparison of S/T/F/CDMA. TELECOMMUNICATION SYSTEMS: GSM - DECT - TETRA - UMTS and IMT -2000

Unit - III

Satellite System: History - Applications - Basics - Routing - Localization - Handover - Examples. BROADCAST SYSTEMS: Overview - Cyclic repetition of data - Digital audio broadcasting - Digital video broadcasting.

Unit - IV

Introducing Communication - Types of Communication - Paragraph Building, Summarising and Precise writing - Media of Communication - Principles of Effective Communication - Barriers to Communication - need, function and kinds of business letters - Effective business letters.

Unit - V

The Layout of the Letter - Enquiries and reply - Quotations - Sales letters - Claims and Adjustments - Collection letters - Sales Letters.

Text Books :

1. **For Unit – I, II & III :** “Mobile Communications”, Jochen Schiller Addison Wesley, Pearson Education, Asia 2000.
2. **For Unit – IV & V :** “Business Communication”, M.S. Ramesh & C.C. Pattanshetti, R. Chand & Co., VIII Ed. 1996

Reference Books :

1. “Mobile Communication”, Ed. By Gibson, IEEE Press.
2. “Essentials of Business Communication”, Rajendrapal & J.S.Koralahalli, Sultan Chand & Sons, VII Rev. Edi. 1994.
3. “Business Communication”, M.S.Ramesh & C.C. Pattanshetti, R. Chand & Co., VIII Ed. 1996.

Semester - II
Paper - VIII
Elective - I
Entrepreneurial Development

Unit - I

To Study the Environment for entrepreneurship development, Identify Business opportunity, Prepare Project Report and appraise Project Implementation and the project.

Unit - II

The Human side of enterprise- meaning of enterprise - Entrepreneur, Entities of Entrepreneur - Functions of Entrepreneurs - Types of Entrepreneur - Motives, Growth of Entrepreneur in India.

Unit - III

Developing Entrepreneurs - Concepts of Entrepreneurship - Phases of EDP - Special Agencies and Schemes - Need for Support Systems - Identification of Prospective Entrepreneurs and their development.

Unit - IV

Identification of Business Ideas - Sources - Project selection - Project life Cycle - Feasibility Analysis - Techno - Economic Analysis - Market and Demand Analysis .

Unit - V

Concept of Projects - Identification - formulation - Project Design - Project Report - Appraisal - Financial Analysis, Profitability Analysis - Social Cost - Benefit Analysis - Incentives and Subsidies for Entrepreneurs.

Text Book :

"Entrepreneurial Development"- CB .Gupta, N.P.Srinivasan, -
Sultan Chand & Sons - IV Rev.Ed.2001.

Reference Book :

"Entrepreneurship Development Principles, Policies and
Programmes"- P.Saravana vel - ESS Pee Kay Publishing House
- II Ed.1991.

Semester - II
Paper - IX
Accounting Procedures and practices

Unit - I

Meaning of Accounting - Meaning and objects of book - keeping - Accounting concepts and conventions - Journal - Ledger - Preparation of Final accounts Trading and Profit and Loss Account - Balance Sheet

Unit - II

Preparation of Cost Sheet, Tender and Quotations - Budgets and Budgetary Control

Unit - III

Variance Analysis - Material Variance - Labour Variance

Unit - IV

Marginal Costing - Cost Volume Profit analysis - Break - Even Analysis

Unit - V

Ratio Analysis - Calculation and Interpretation.

Text Books :

1. **For Unit - I :** "Principles of Accountancy", N. Vinayakam, P.L. Mani K.L. Nagarajan, Euratia Publishing House (Pvt) Ltd, Ed. 1999.
2. **For Unit - II :** "Cost Accounting Principles and Practice", S.P. Jain & K.L. Narang, Kalyani Publishers, 17th Rev. Ed. 2002
3. **For Unit - III, IV & V :** "Principles of Management Accounting", S.N. Maheswari, Sultan Chand & Sons., Rev. Ed. 1997.

Semester - II
Paper - X
Programming Lab III
Java and Accounting Packages Lab (Equal Weightage)

Part - I: Java Programming Lab

1. Command line Arguments

Write a Java Applications which converts the given string in upper & lower case using command line arguments.

2. CALL-ME telephone department send telephone bill to its customers on the 15th day of the month. The telephone bill details consists of tele-no (integer) cust-nm (10 characters), cust-add (30 characters) and no-calls(integers), Amt(float).

With the help named bill with the help of java program create a class named bill with above mentioned telephone bill details. Code a constructor such that it initialises the data member to fixed values and finalizer methods to destroy the data members.

CALL-ME

Telephone Department:

Customer Name : -----

Customer ADD : -----

Call Made : <No calls>

Total Bill : -----

Tel.No. -----

If paid after 10 days you have to pay : -----
Write a Java Program

Note : Normally the department charges Rs.1/- per call. For late payment the department charges Rs.1.10/- per call

3. Assume that a bank maintains 2 kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdraw facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level a service charge is imposed

Create a class Account that stores customers name, account number and type of account. From this derive the classes curr-acct and sav-acct to make them more specific to their requirements. Introduce the necessary methods in order to achieve the following tasks :

- a) accept deposit from a customer and update the balance
 - b) Display and deposit interest
 - c) Compute and deposit interest.
 - d) Permit withdrawal and update the balance
 - e) Check for the minimum balance, impose penalty, if necessary and update the balance. Use constructors and methods to initialize the class members.
4. Write a program to extract a portion of a character string and print the extracted string. Assume that in characters we are starting with the nth characters.
5. Write a program that accepts a shopping list of five items from the command line and stores them in a vector and accomplish the following :
- ❖ To delete an item in the list

- ❖ To add an item at a specified location in the list
- ❖ To add an item at the end of the list
- ❖ To print the contents of the vector

6. Implementation of the concept of multiple inheritance using interfaces and design a package to contain the class students and another package to contain the interfaces sports.

7. Develop a simple real-life application program to illustrate the use of multithreads.

Part - II : Accounting Packages Lab

1. Create a new company and furnish all necessary particulars regarding your company.
2. Enter the following ledger accounts.

Particulars	Debit	Credit
SHARE CAPITAL		1000000
Equity Capital		1515000
Preference Capital		
ACCOUNTS PAYABLE		12500
Mehatha & Co <i>cap. Acc</i>		20000
Shah & Co		
FIXED ASSETS		
Land & Building	100000	
Plant & Machinery	50000	
CURRENT ASSETS		
Cash in hand	1000000	
State Bank of India (Bank balance)	1000000	
SUNDRY DEBTORS		
Gupta & Co	200000	
Tagore & Co	400000	
EXPENSES		
Telephone Exp.	30000	
Travelling Exp	15000	
Purchase - Cotton	150000	
Purchase - Color Chemicals	25000	
Purchases - Other Materials	10000	
INCOME		290000
Sales - Chudithars		132500
Sales - Sarees		10000
Rent Received		
TOTAL	2980000	2980000

Note : Check there is no difference in the Debit or Credit Balance.

2. Pass the Following transactions:

- i. Paid Telephone Charges Rs.11000 /- on 15th Jan.
- ii. Cash drawn from Bank Rs. 10000 on 18th Jan.
- iii. Paid Traveling Expenses Rs.5000. on 18th Jan.
- iv. Received rent Rs.6000/- on 20th

3. Enter the Stock details:

ITEM	OPEN. STK	OPEN. STK. VALUE	SALES RATE	PURCHASE RATE	UNITS	GROUP
BENGAL - COTTON CHUDI	1000	350000	450		NOS	CHUDITHARS
POLY COTTON SAREE	750	225000	500		NOS	SAREES
MAROON COLOR-CHEMICAL	1500			5	LTS	CHEMICALS
TERRY COTTON	10000			15	MTS	COTTON

4. Enter the following vouchers

- i. Sold 10 nos of Bengal Sarees, 20 nos of Poly Cotton Sarees to Guptha & Co at prescribed rate. invoice no.001100 on 15th jan. Excise duty 12% on sales to be included.
- ii. Purchased 150 liters of Maroon Chemicals, from Mehatha and Co at prescribed rate. On 10th jan , invoice no. 10001
- iii. Received cheque from Guptha & co on invoice no.001100 after allowing a discount of 5% on 20th jan.
- iv. Payment made to Mehatha and Co on invoice pending. 10001. Received 6% discount. On 16th jan

BHARATHIDASAN UNIVERSITY,



TIRUCHIRAPPALLI - 24.

ONE YEAR DIPLOMA IN

FASHION TECHNOLOGY

SUBJECT OF STUDY AND SCHEME OF EXAMINATION.

(For the candidates to be admitted from the Academic Year 2017-2018 onwards)

Sem.	Paper	Title	Exam Hours	Marks		Marks
				IA	UE	
I	Paper I	Fashion Designing	3	25	75	100
	Practical I	Textile Art and Crafts (Lab)	3	40	60	100
	Practical II	Sewing Techniques (Lab)	3	40	60	100
II	Paper II	Pattern Making and Grading	3	25	75	100
	Practical III	Designing and Construction of Children and Women Garment (Lab)	4	40	60	100
	Practical IV	Computer Aided Fashion Designing (Lab)	3	40	60	100
Total						600

PAPER I
FASHION DESIGNING

Objectives:

1. To understand the fundamentals of design and fashion
2. To learn the type of figure irregularities and wardrobe planning

Unit I

Design - Definition, Types – Structural and Decorative Design and their requirements. Elements of design- Line, Shape, Colour, Size and Texture. Principles of Design – Balance, Rhythm, Emphasis, Harmony and Proportion, Application of Principles of Design in dress.

Unit II

Fashion Sketching - Introduction to drawing, aspects of drawing, tools, difference between normal and fashion figures. Human proportion and figure construction. Head - the unit of measurement and average proportion. Sketching of female figure with proportion. Proportions for the figure measuring seven and half heads – drawing front view lay figure, drawing the three quarter view lay figure, drawing a straight line fashion figure, drawing a head, drawing the fashion figure, free hand drawing. Illustrating garment details – collars, necklines, sleeves, pockets, yokes, skirts and trousers.

Unit III

Colour – Definition, colour theories – Prang and Munsell colour system. Dimensions of colour - Hue, Value and intensity, Standard colour harmonies and the design principles applied to colour in dress design.

Unit IV

Trimmings and Decorations - Definition, Types – ric-rac, lace, bias trimmings, embroidery, applique, smocking, belts, bows, fringes and tassels. Selection and application of trimmings and decorations. Fashion Accessories – shoes, handbags, jewellery, hats and ties. Prepare a picture album for accessories.

Unit V

Figure Irregularities – Stout figure, thin figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large bust, flat chest, large hip, large abdomen, round face, large face, small face and broad face, prominent chin and jaw and prominent forehead. Wardrobe planning and factors to be considered while selecting clothes for different age groups (Children, men and women)

Reference Books:

1. “Fashion Sketch Book” written and illustrated by Bina Abling, Fair Child Publications, New York, 2012.
2. “Wardrobe Strategies for Women” Judith Rasband, Delmar Publishers, London, 2001.

PRACTICAL I

TEXTILE ART AND CRAFTS (LAB)

Objectives:

- To learn the types of art and craft
 - To make the students to become skilled at Art and Craft techniques.
1. Lace making - Crochetting
 2. Knitting - Hand knitting
 3. Applique work - Both hand and machine applique
 4. Painting Techniques - Paper Painting, Fabric Painting (Preparation of Samples).
 5. Glass Painting, Nib Painting, Embossed Painting, Sand Painting, Pot Painting, Tile painting.
 6. Wall hanging, Felt hand bag and Patchwork, Soft Toys.
 7. Artificial Flower Making and Bouquet Making

Reference Books:

1. Ann Wilson, The Complete Photo Guide to Textile Art, Creative Publishing International, USA, 2010,
2. Lucinda Ganderton, Dorothy Wood The Ultimate Book of Quilting Cross Stitch, Needle craft, Anness Publishing Ltd., London, 2005.
3. Lovis Helda, "Guide to Arts and Crafts", J.G.Ferguson and Associate change, 1954.

PRACTICAL II

SEWING TECHNIQUES (LAB)

Objectives:

- To gain practical knowledge in basics of sewing and tools used.
 - To acquire skills in surface enrichment techniques.
1. Learning to use different tools used in measuring, cutting, sewing, embroidery and pressing.
 2. Sewing Machine – types, uses, maintenance and care.
 3. Temporary stitches- even basting, uneven basting, slip basting and tailor's tacking. Permanent stitches - running, back, run and back slip hem, over casting and whipping. (making samples for each)
 4. Making samples for embroidery:
 - i. Hand embroidery (50 samples) ii. Machine embroidery (5 to 7 samples).
 5. Constructing seam and seam finishes- **Seams** – plain, flat fell, slot, welt, lapped, french and mantua maker's **Seam finishes** – pinked, edge stitched, double stitch, overcast, bound seam edge
 6. **Fullness** - Darts, tucks, pleats, frills and gathers (making samples for each).
 7. Constructing samples for different types of yokes, collars and pockets.
 8. Constructing samples for each neckline finishes, plackets and fasteners.
 9. Mending - Darning and Patching.
 10. Making samples for each trimmings and decorations.

Reference Books:

1. Mary Mathews, "Practical clothing Construction", Part I & II, Printed by Cosmic Press, Madras, 1985.
2. "Reader's Digest Sewing Guide, Complete Guide to Sewing", The Readers Digest Association Inc, Pleasant Ville, New York.

PAPER II
PATTERN MAKING AND GRADING

Objectives:

1. To study the basic pattern making procedure
2. To draft patterns for various dresses

Unit I

Pattern Making Techniques: Drafting- Definition, drafting techniques, and preparing bodice Pattern for the standard measurements. **Draping** - Definition, fashion draping, process of draping and materials required. **Flat Pattern Techniques:** Definition, pivot, slash and spread method, relocation of darts, introducing fullness at various places.

Unit II

Commercial Patterns: Definition, types of patterns, selection of patterns, merits and demerits, Pattern Grading. **Selection of Fabrics** for different garment styles, steps in preparing fabric for cutting, handling of slippery fabrics, stripes, plaids, checks, pile, fabric with up & down design fabrics.

Unit III

Lay Planning: Definition, types of layouts, economy of placing patterns on fabrics, adjusting fabrics to patterns. **Fabric Preparation:** Preparation of fabrics - straightening, shrinking, pressing, study of grain marking, transferring the marking and cutting the fabric, cutting different types of fabric.

Unit IV

Pattern Alterations: importance and general principles of pattern alteration, and pattern alteration for irregular figures. **Drafting pattern for infants and toddlers**
Dresses: Drafting Pattern for (a) Jabla (b) Panties (c) Baby Frock (d) Romper

Unit V

Drafting pattern for preschooler and grade schooler dresses : Drafting pattern for (a) Plain knicker (b) Summer Frock (c) Shorts (d) Middy (e) Middy Top (f) Shirt with yoke, full sleeve and collar (g) Pant. **Drafting Pattern for grown up dresses:** Drafting pattern for (a) Apron (b) Boy's pyjama (c) Kurta (d) Salwar and Kameez (e) House coat.

References:

1. Hollen Norma : Flat Pattern Methods, Burgers Publishing Minnerote, 1970.
2. A Marshall Carendish Collection in 26 Pats, "Make it easy" Patterns 1-34, Mix and Match Pattern wardrobe and Sewing Guide, 1993.
3. Hillery Campbell "Designing patterns" Standley Thornes Publishers, England, 1980.
4. Hedge, K.M. Scientific Garment cutting, K. Mhedge and Sons, Poona, 1983.

PRACTICAL III

DESIGNING AND CONSTRUCTION OF CHILDREN AND WOMEN GARMENT (LAB)

Objectives:

1. To impart skill in designing and pattern making
2. To acquire practical skill in constructing garments

Children's Garments

Unit I Infant Dresses

- a) Jabla
- b) Panty
- c) Bib
- d) Cap / Bonnet
- e) Baby Frock
- f) Baby Bed Set
- g) Knicker

Unit II Toddler's Dresses

- a) Romper/Sunsuit
- b) Frock-A-line/Summer/Yoke

Constructing one in each item

Unit III Pre schooler's Dresses (Boys)

- a) Shirt
- b) Shorts

Constructing one in each item

Unit IV Pre Schooler's Dresses (Girls)

- a) Full skirt
- b) Blouse

Constructing one in each item

Unit V Women's Garment

- a) Saree Petticoat
- b) Brassiers
- c) Blouse
- d) Middy & Middy tops
- e) Nightdresses
- f) Salwar & kameez
- g) Ladies Pant & Shirt

References:

1. Mary Mathews, "Practical clothing Construction", Part I & II, Printed by Cosmic Press, Madras, 1985.

PRACTICAL IV

COMPUTER AIDED FASHION DESIGNING (LAB)

Objectives:

1. To learn the basic function of computer and its use in textile and apparel industry.
2. To design various garments in computer.

Unit I Basics in Computers

- Windows
- Transfer a design from sample to computer and vice versa
- Various colour scheme

Unit II Computer aided garment for

- Children
- Women
- Men

Unit III Computer Control of

- Production Planning
- Pattern Making
- Pattern Grading

Unit IV Computer Control of

- Production Scheduling
- Label Designing

Unit V Computer Colour Matching

- Functions
- Procedure
- Advantages

References:

1. "Computer Technology for Textile", WRC Simty Publications & Co., Atlanta 1970.
2. "Summer School on Computer Application in Textiles", ISTE, VJTI, Bombay, June 1981.

BEAUTY CULTURE

Unit - I

Personality Development and grooming.

Self Analysis and Personality Traits: Communication Skills, Etiquette & Manners, Selection of Dresses according to Climate, Occasion and Body Build up, Selection of Make-up according to Climate and Occasion.

Various Safety measures to be taken up by Beauticians for ensuring Personal and Public Safety.

Unit - II

Skin disorder and Skin care.

Causes and Remedies of Common Skin Disease / Disorders and Preventive Measures.

Types of Faces and bleaching.

Need for Bleaching & Facial, Types of bleaching. Skin diseases, Type of facial for Dry skin & Oily skin, Facial by creams.

Unit - III

Eye care & shaping.

Importance of Eye care, Safety & Need for Eyebrow Shaping, Methods of eyebrow shaping - Threading, Tweezing.

Manicure and Pedicure.

Knowledge about Nails, Definition, Importance and Procedure, Precautions, Diseases and Disorders - Causes, Treatment.

Unit – IV

Care of hair.

Importance of Hair care, Prevention from lice, Methods of hair care – By clay powder, Soap, Shampoo and Conditioner.

Unwanted / Super fluous hair.

Method of removing unwanted Hair – Hot wax, Cold wax, Pluck, Threading. Using cream and Lotion.

Unit – V

Hair Styles

Types of Jura-one roll, Two roll, Inter lock, Bridal, Use of Switches, Types of Choti – French, Fish Flat. Four Parting Flat, Use of Artificial Choti and Prandi, Hair cutting & its importance, cutting according to facial bones (faces). Types of Hair making, Methods-Wet, Dry, Tools & equipments.

Text Books :

- 1 “By your own beautician”, Arouna Recjhsinghari, Orient Paper backs, New Delhi.
- 2 “Beauty ‘U’”, Aruna Gopalakrishnan, Thirumagal Nilayam, Madras.
- 3 “Herbal Beauty Care”, Rashmi Sharma, 2/2 Mission road, Bangalore – 21.

BEAUTY CULTURE LAB

1. Practice in Threading.

2. Preparation of different types of Bleaches and Face packs, Methods of using bleaches.

3. Practice in doing different types of Make-up.

4. Practice in methods of Removing unwanted Hair

5. Hair care & Different types of Hair styles.

6. Practice in Pedicure and Manicure.

7. Application of Chemical and Herbal Dyes.

HEALTH CARE

Unit - I

Health Education, Nutrition & Personal Hygiene.
Principles of Nutrition, Balanced Diet, Basic principles of Health, Inter Relationship between Nutrition, Health and Personal Hygiene.

Unit - II

Environmental Education.

Various Environmental Problems like Water Pollution and Noise Pollution, Importance of disposal of Garbage, Recycling of Drainage Sewage, Bio diversity Inter Relationship between life Cycle and Environment.

Unit - III

Yogasanas and Exercise.

Importance and Benefit of Massage, Yoga and Aerobic Exercises, Types of body Massages and Scalp Massage.

Unit - IV

Body Perfection.

Types of Aerobic exercises for Body perfection. Balanced Diet and Desirable Nutritional practices.

Unit - V

Yoga Exercises

Concept of Yoga, Types of Yogasanas, Art of performing Yoga, Precautions.

Text Books :

1. "Sound Health through Yoga", Dr.K. Chidambaram
2. "Nutrition", Dr. Swaminathan
3. "The Way to Fitness", Prof. Karens Mazzeo

BODY PERFECTION LAB

1. Demonstration of Different Exercises.
2. Practice of Yoga Exercises.

Demonstration of the following :

- Padmasana
- Sidhasana
- Vajrasana
- Halasana
- Paschimottasana
- Sarpasana
- Dhanurasana
- Chakrasana
- Tarekesana
- Shevasana
- Pranayama

DBPO1

COURSE I – BASICS OF BUSINESS PROCESS OUTSOURCING

Unit I

Business Process Outsourcing -- Basics -- Benefits of BPO -- Growth Drivers -- BPO Models and Types of Vendors -- Offshore BPO -- Evolution Destinations -- Challenges of Off shoring -- BPO Companies in India.

Unit II

BPO Industry -- Employment Opportunities -- Employee Structure -- Skill Set Required -- Compensation Levels -- Contact Centre BPO -- Types of Call Centres -- Technology -- Components and working of a Call center -- Issues and Problems -- Case Study -- Intelenet Global.

Unit III

Healthcare BPO -- Structure of the American Healthcare Sector -- Activity Profile -- Future Trends and Threats -- Case Study -- Cbay Systems.

Unit IV

Transaction Processing BPO -- Elements of Back -- Office Services -- Financial Services -- Insurance -- Case Studies -- Datamatics -- Hinjuja TMT.

Unit V

Human Resource BPO -- Reasons for outsourcing HR -- Activities involved in HR BPO -- HR Outsourcing Trends -- Career in HR BPO -- Emerging BPO Domains -- Media and Entertainment BPO -- Publishing BPO.

Text Book:

Business Process Outsourcing, Sarika Kulkarni Jaico Publishing House, Delhi 2005

Reference Book:

BPO DIGEST Deepak Shikapur Ameya (Inspiring Books) 2004

DBP02

COURSE II – ENGLISH AND INFORMATION TECHNOLOGY

Unit I

Prelude to Spoken English (Nouns, Pronouns, Verbs); Articles; Special usages; Prepositions; Tenses; Questions; Responses. Emphasis on LSW Skills Listening: Comprehension practice, Short Conversation, Long Conversation Talks and Lectures. Emphasis on LSW skills Listening : Comprehension practice, Short Conversation, Long Conversation Talks and Lectures Speaking : Accent Orientation, Words, Structures Writing : Close test, Comprehension, Theme Detection, Error Detection, deriving Conclusions, Cumulative Review Exercise.

Unit II

Introduction to Western Culture; Accent Training; Listening Skills through practice sets; Neutralization of Accent; Spoken English Training-Exercises & Tests; Voice Modulation; Mock Conversation – Practice; Vocabulary; Travel Queries; Replies; Etiquette; Plans, Meetings and invitations. Written English : Essentials of E-mails, Chat, Exposure to script drafting, E-mail Writing.

Unit III

Introduction to computer; Computer Components; Memory units; Storage Devices; I/O devices; Digital fundamentals Binary, Octal, Hexa decimal number system; Introduction to Software and database. Introduction to Telecommunication; Networking; Communication System; Distributed System; Turn Around Time (TAT); File Transfer Protocols; Internet; Intranet; Security concepts; Web Server – Web Browsers.

Unit IV

E-Publishing : Aspects of quality control and tools available on quality control. MS-Office : MS-Word, MS-Excel, MS-Power Point

Unit V

Data Conversion Techniques : Software skills; Acrobat Fine Reader – How to open this package, File Management, Edit tools, Print features, Format tools used; Abby Version 7 – Package introduction, File Management commands, Editing commands, selecting correct object tools for images, text and tables, Spelling check functions, Grouping images, Processing files in groups, image cropping and editing commands, scanning images and saving into required format, Additional tools used.

Text Book

English Grammar Wren & Martin S.Chand & Co 2005, \

DBPOPI

COURSE III – PRACTICAL I

- a) Typing Tutor – Practice
- b) Typing Master – Online Practices & Tests
- c) Internet & File Transfer Protocol (FTP) – Exercises
- d) MS-WORD

1. Text Manipulation

Change the font size and type
Aligning and justification of text
Underlining the text
indenting the text

- (i) Prepare a Bio-Data
- (ii) Prepare a letter

2. Usage of Numbering, Bullets, Footer and Headers

Usages of Spell check and Find and Replace

- (i) Prepare a document in newspaper format
- (ii) Prepare a document with bullets and footers and headers

3. Table and Manipulations

Creation, Insertion, Deletion (Columns & Rows) and usage of Auto Format.

- (i) Create a mark sheet using table and find out the total marks.
- (ii) Create a calendar and Auto format it.

4. Picture Insertion and alignment

- (i) Prepare a greeting card
- (ii) Prepare a handout.

5. Creation of documents using templates

Creation of templates

- (i) Prepare a letter using any template
- (ii) Prepare two data using various kinks of templates

6. Mail Merge concepts

- (i) Prepare a business letter for more than one company using Mail merge
- (ii) Prepare and invitation to be sent to specific addresses in the Data source.

7. Copying text and picture from Excel

- (i) Draw a chart in Excel and paste it on word.
- (ii) Import a picture from Excel and edit the picture.

e) MS-EXCEL

- (i) Usage of Formula and Built – in – functions
- (ii) Describe the types of functions
- (iii) File Manipulations
- (iv) Data Sorting – Ascending and Descending (Both numbers and alphabets).
- (v) Worksheet, Preparation.
- (vi) Mark List preparation for a student
- (vii) Individual Pay Bills Preparation
- (viii) Electricity Bills Preparation
- (ix) Inventory Report Preparation
- (x) Invoice Report Preparation
- (xi) Drawing Graphs
- (xii) Usage of Auto formatting.

f) MS-POWER POINT

g) Abby 7

1. File conversion – only running text – single page matter.
2. Conversion and correction – only running text – double columns format.
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12. Conversion and correction – only tables – double column format.
13. Conversion and correction –double column format center numbering system
14. All types – exercise on multiple document opening and handling.
15. Some important error code fast checking (key1/key2) – exercises.

DB P03

COURSE IV – CALL CENTRE TECHNOLOGY AND TECHNIQUES

Unit I

Telephone Etiquette; Brief on American and British Culture / Accent: Political setup, culture inputs, Geographical Structure; Difference in work habits between US, UK and India; World Time Zones; Time management; Call Flow and Work Flow; American and Hispanic names; Interactive videos on US/UK English usage; Inbound / Outbound operation – an explanation; Telephone Tips; Winning Attributes of a customer service representative; Structure of a call; Listening and paraphrasing; Effective probing; Rapport and Empathy.

Unit II

ITES and Back Office function; Workflow Management; Workforce productivity system; Scanning ; Call center technology – PBX system features; IVR (Interactive Voice Response System); ACD (Automatic Communication Distributor System); Interaction Mail (unified Messaging and Voice Mail); Interaction Fax; Web Services; Software Phone; IPLC (International Private Leased Circuit Lines); VOIP; Dialers; Call Logger.

Unit III

Soft Skills : To maintain good customer relationships without face to face contact; Evaluate listening skills; How to translate Technical Jargon into better customer communication; Make success in sales.

Unit IV

Professional Telephone calling technique; Effective information gathering technique; Understanding customer competence levels; Effective telephone communication skills; Negotiation Technique; How to overcome objections; Compliments receiving; open ended/close ended questions; Probing questions; Call flow/process flow; Handling most difficult customers.

Unit V

Quality Control Operations; Internal quality checks; External quality check summarizing and producing complete call reports – Default Interaction Client User Report; Line Usage Reports; User Reports; Call Reports; Queue Performance Reports; Performance Monitoring reports, Standard Report Logs, Custom Report Logs.

Text Book:

Call Centre Training Course Kit (With CD), Vikas Gupta Dreamtech 2003 Call Centre Technology & Techniques, Jack.A.Green Thomson 2004.

Reference:

Call Centre Operations Charles E Day McGraw Hill (Part – III) 2000.

DBPOH

COURSE V – TRANSCRIPTION TECHNIQUES

Unit I

What is Transcription; Forms of Transcription in market; Its evolution and importance in western country; Soft skills – the software used in transcription, Accent listening and Converting into text, error correcting of converted text – exercises.

Unit II

Use, importance and application of Medical Transcription; Abbreviations used in Medicine; Generic Names and pharmacological classifications (prefixes, suffixes, root words, acronyms, synonyms and commonly used foreign words and phrases); Common Medicines and drugs – an exposure.

Unit III

New paradigm of medical treatment using computer, internet and website; Accuracy and Productivity standards – Awareness of functions, operations, and dynamics of medical transcription work environments; Language practice using audio files and headphones and simultaneous transcribing – proof reading – keyboard practice.

Unit IV

Transcription of Healthcare documents; Healthcare records, its purpose and contents; Format of Healthcare documents – Knowledge of standards and regulations related to healthcare documentation set by US authorities – Medico Legal – Concepts and issues; Confidentiality and ethics; risk management; Exposure to Insurance claim forms ; Some exercise on Healthcare forms and Insurance claim forms.

Unit V

Exposure to Legal Transcription ; Law in general, and its origin; Various court systems; Cases, Formats and Examples relating to legal application and reasoning; Transcription of Legal Document; Exposure to Office Transcription; Sample formats and examples; Quality Control aspects; Final report preparation.

Text Book:

Medical Office Transcription -- An Introduction to Medical Transcription By Karonne Becklin & Edith Sunnorbory, McGraw Hill 2005

DBPOP2

COURSE VI – PRACTICAL II

1. Mock Call Practice
2. Listening and answering queries
3. Listening and transcription of Office forms and Medical forms.
4. Exercises on Health claim forms, Insurance forms, Legal notes.
5. Listening and typing Medical Transcription jobs.
6. Generating internal quality check reports.
7. Live call center experience on international floor.

DBPO1

COURSE I – BASICS OF BUSINESS PROCESS OUTSOURCING

Unit I

Business Process Outsourcing – Basics – Benefits of BPO – Growth Drivers – BPO Models and Types of Vendors – Offshore BPO – Evolution Destinations – Challenges of Off shoring – BPO Companies in India.

Unit II

BPO Industry – Employment Opportunities – Employee Structure – Skill Set Required – Compensation Levels – Contact Centre BPO – Types of Call Centres – Technology – Components and working of a Call center – Issues and Problems – Case Study – Intelenet Global.

Unit III

Healthcare BPO – Structure of the American Healthcare Sector – Activity Profile – Future Trends and Threats – Case Study – Cbay Systems.

Unit IV

Transaction Processing BPO – Elements of Back – Office Services – Financial Services – Insurance – Case Studies – Datamatics – Hinjuja TMT.

Unit V

Human Resource BPO – Reasons for outsourcing HR – Activities involved in HR BPO – HR Outsourcing Trends – Career in HR BPO – Emerging BPO Domains – Media and Entertainment BPO – Publishing BPO.

Text Book:

Business Process Outsourcing, Sarika Kulkarni Jaico Publishing House, Delhi 2005

Reference Book:

BPO DIGEST Deepak Shikapur Ameya (Inspiring Books) 2004

DBP02

COURSE II – ENGLISH AND INFORMATION TECHNOLOGY

Unit I

Prelude to Spoken English (Nouns, Pronouns, Verbs); Articles; Special usages; Prepositions; Tenses; Questions; Responses. Emphasis on LSW Skills Listening: Comprehension practice, Short Conversation, Long Conversation Talks and Lectures. Emphasis on LSW skills Listening : Comprehension practice, Short Conversation, Long Conversation Talks and Lectures Speaking : Accent Orientation, Words, Structures Writing : Close test, Comprehension, Theme Detection, Error Detection, deriving Conclusions, Cumulative Review Exercise.

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7. Live call center experience on international floor.

VALUE-ADDED COURSE

Departments of Computer Science ,IT &
Computer Applications

**ACE to Python Programming & Interview
Skills**

Starts from December 2021 - May 2022

Duration 60 Hrs

- Live Projects
- Extended lab support
- Hands-on-training



- III Year BCA, B.Sc CS, B.Sc IT
- II Year M.Sc (CS), M.Sc (IT), M.Sc (Mathematics)



Industro Learning Pvt. Ltd
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Mail: support@industro.co



Sri Ramakrishna Mission College
Website: <https://www.sigm.edu/>
Mail: contact@sgm.edu



InLustro

Your Learning Comrade

Curriculum

Ace the Python Interview

Second Semester

Academic Year 2021 - 2022

InLustro

ACE THE PYTHON INTERVIEW

SYLLABUS

OBJECTIVES OF THE COURSE

- Understand and use various data structures in Python, such as lists, tuples, dictionaries, stacks, queues, linked lists, hash tables, and sets.
- Understand and use recursion and divide and conquer techniques to solve problems in Python.
- Understand and implement object-oriented analysis and design principles and advanced Python concepts such as decorators, generators, metaclasses, and context managers.
- Understand and design scalable and maintainable systems, and prepare for technical interviews through tips, strategies, mock interviews, and feedback sessions.

Unit 1: Data Structures

- Introduction to data structures and their importance in programming
- Lists, tuples, and dictionaries in Python
- Stacks, queues, and linked lists
- Hash tables and sets

Unit 2: Recursion and Divide and Conquer

- Understanding recursion and divide and conquer and their uses in problem-solving
- Recursive and divide and conquer algorithms and problem-solving
- Examples of problems that can be solved using recursion and divide and conquer and their solutions in Python

Unit 3: Object-Oriented Analysis and Design and Advanced Python

- Understanding OOP and its uses in software development
- Classes and objects
- Inheritance and polymorphism
- Design patterns and best practices
- Advanced Python topics such as decorators, generators, metaclasses, and context managers
- Concurrency through threads in Python

Unit 4: System Design

- System design principles and best practices
- Designing scalable and maintainable systems
- Understanding trade-offs and constraints when designing systems
- Examples of system design problems and their solutions in Python

Unit 5: Interview Preparation

- Tips and strategies for acing technical interviews
- Commonly asked interview questions and how to solve them
- Whiteboarding exercises and how to approach them
- Mock interviews and feedback sessions
- Resume and portfolio building advice

COURSE LEARNING OUTCOMES

- Upon completion of the course, students will be able to implement various data structures in Python to solve problems efficiently.
- Students will be able to analyze problems and determine if they can be solved using recursion and/or divide and conquer techniques and implement the solution in Python.
- Students will be able to design object-oriented software and understand advanced Python concepts, and be able to use concurrency through threads in Python.
- Students will be able to design scalable and maintainable systems and be prepared for technical interviews through the understanding of system design principles and best practices, and the ability to solve common interview problems.

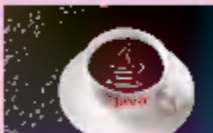
Teacher: Subha



A handwritten signature in black ink.

VALUE ADDED COURSE

Department of Computer Science , I.T and Computer Applications



- Live Projects
- Extended Lab Support
- Hands on-training

ADVANCED JAVA

Programming

STARTS FROM

DECEMBER 2021 to May 2022

- 1 Year B.Sc Computer Science
- 1 Year B.Sc Information Technology
- 1 Year Bachelor of Computer Applications

- 1 Year M.Sc Computer Science
- 1 Year M.Sc Information Technology
- 1 Year M.Sc Mathematics



Inlustro Training Pvt Ltd.,
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Mail : support@inlustro.net



Shrimati Indira Gandhi College
website : <https://www.sigc.edu/>
Mail : Contact@sigc.edu



InLustro

Your Learning Comrade

Curriculum

Advanced JAVA

Second Semester

Academic Year 2021 - 2022

InLustro

ADVANCED JAVA

SYLLABUS

OBJECTIVES OF THE COURSE

- Understand and use basic and advanced features of the Java programming language, including control structures, data types, object-oriented concepts, interfaces, generics, and functional programming.
- Understand and implement concurrency in Java through the use of threads, the Executor framework, and thread-safe programming techniques.
- Understand and apply design patterns in Java to solve common programming problems and improve the design of the software.
- Understand and apply object-oriented analysis and design principles and best practices for designing large-scale systems in Java, including class design, UML diagrams, and garbage collection and memory management.

Unit 1: Basic Java

- Introduction to Java and its basic syntax
- Primitive data types and control structures
- Arrays and ArrayLists
- Methods and parameters
- Basic object-oriented concepts

Unit 2: Advanced Java

- Interfaces and abstract classes
- Inheritance and polymorphism
- Exception handling
- Generics
- Enumerations and annotations
- Streams and functional programming

Unit 3: Concurrency

- Introduction to concurrency in Java
- Threads and Runnable interface
- Synchronization and locks
- Executor framework
- Concurrent data structures
- Thread-safe programming

Unit 4: Design Patterns

- Introduction to design patterns
- Creational patterns (e.g. Singleton, Factory, Builder)
- Structural patterns (e.g. Adapter, Decorator, Facade)
- Behavioral patterns (e.g. Observer, Template Method, State)
- Examples of how to use design patterns in Java

Unit 5: Object-Oriented Analysis and System Design

- Object-oriented analysis and design principles
- UML diagrams and class design
- Design patterns for system design
- Garbage collection and memory management
- Best practices for designing large-scale systems in Java

COURSE LEARNING OUTCOMES

- Upon completion of the course, students will be able to write Java programs using various control structures, data types, and object-oriented concepts, including interfaces, generics, and functional programming.
- Students will be able to design and implement concurrent Java programs using threads, the Executor framework, and thread-safe programming techniques.
- Students will be able to recognize and apply common design patterns in Java to improve the design and maintainability of their code.
- Students will be able to design and implement large-scale systems in Java using object-oriented analysis and design principles, class design, UML diagrams, and best practices for garbage collection and memory management.

Teacher: Pavani Scinde





Internal Quality Assurance Cell
of
SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at 'A' Grade (3rd Cycle) By NAAC)

Tiruchirappalli - 620 002

Organizes

**Coaching for TNPSC
Group - IV Examination**



Resource Person

Faculties of
Dept. of Tamil,
Mathematics and Economics

Beneficiary

Students of SIGC



04-04-2022 to 29-04-2022



01.15 p.m. to 02.15 p.m.



RV Auditorium

ஸ்ரீமதி இந்திராகாந்தி கல்லூரி
தமிழாய்வுத்துறை
போட்டித்தேர்வுக்கான
பாடப்பகுதி

அலகு 1

சங்கம் பற்றிய செய்திகள் - முதல் - இடை - கடைச் சங்கங்கள்
- சங்க இலக்கியங்கள் - பத்துப்பாட்டும் எட்டுத்தொகையும்

அலகு 2

சங்கம் மருவிய கால இலக்கியங்கள் - இரட்டைக் காப்பியங்கள்

அலகு 3

ஐம்பெருங்காப்பியங்கள் - ஐஞ்சிறுகாப்பியங்கள் - புராண
இதிகாசங்கள்

அலகு 4

பக்தி இலக்கியங்கள் - சிற்றிலக்கியங்கள் - தனிப்பாடல்கள்

அலகு 5

தற்கால இலக்கியங்கள் - புதுக்கவிதை - உரைநடை - கட்டுரை
இலக்கியம்

தமிழததுலையுத துலையு
ஸ்ரீமதி இந்திராகாந்தி கல்லூரி
தமிழாய்வுத்துறை - 2.

SHRIMATI INDIRA GANDHI COLLEGE,
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TIRUCHIRAPPALLI - 620 002.
PG & Research Department of Mathematics

Syllabus
TNPSC Coaching

UNIT I: HCF and LCM

Factors and Multiples-Definition-Highest common factor-Definition-worked examples-Least common multiples-Definition-worked examples-Problems.

UNIT II: Simple interest and compound interest

Introduction- Calculation of Simple Interest -Worked Examples-Problems on Simple interest and Compound Interest-Worked Examples -Problems on Compound Interest.

UNIT III: Problems on Numbers

Number system facts and formulae-Number System-Worked Examples-Simple Problems

UNIT IV: Logical Reasoning

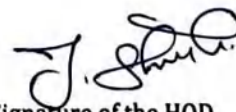
Logical Reasoning -Visual Reasoning –Alphanumeric Reasoning – Number Series

UNIT V: Average, Proportion, Ratio and Proportion

Introduction-Average of different groups-Addition or removal of items and change in Average-Solved Problems-Introduction-Properties of ratio-Dividing a given number in the given ratio-Comparison of ratio-continued Proportion-Solved Problems.

Reference

1.Quantitative Aptitude, R.S. Agarwal



Signature of the HOD

The Head
Dept Of Mathematic.
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002

Department of Economics

SYLLABUS

UNIT I Current Affairs : September to March -state and center

UNIT II Indian National Organizations- Chairman-Functions , Assessments.

UNIT III Indian Politics – state administration – local governance

Unit IV Awards and recognitions

UNIT V General Economics

S. Rengalashini

The Head
Dept. of Economics
Shrimati Indira Gandhi College
Tiruchirappalli-2.



Training and Placement Cell



SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at A+ Grade (1st Cycle) by NAAC)

Neelurappalli-500 002

Organized

Quantitative Aptitude Classes



Resource Person

Faculty of

Dept. of Physics and Mathematics

Beneficiary
Students of SIGC



05.08.2023 to 07.08.2023



1.15 p.m. to 2.15 p.m.



Google Meet

SHRIMATI INDIRA GANDHI COLLEGE,
(Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC)
TIRUCHIRAPPALLI - 620 002.
PG & Research Department of Mathematics & Department of Physics

Syllabus
Quantitative Aptitude I

UNIT I: HCF and LCM

Factors and Multiples-Definition-Highest common factor-Definition-worked examples-Least common multiples-Definition-worked examples-Problems.

UNIT II: Simple interest and compound interest

Introduction- Calculation of Simple Interest -Worked Examples-Problems on Simple interest and Compound Interest-Worked Examples -Problems on Compound Interest.

UNIT III: Average, Proportion, Ratio and Proportion

Introduction-Average of different groups-Addition or removal of items and change in Average-Solved Problems-Introduction-Properties of ratio-Dividing a given number in the given ratio-Comparison of ratio-continued Proportion-Solved Problems.

UNIT IV: Time and Work, Profit and Loss

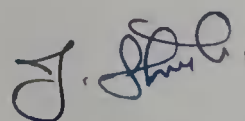
Important facts and formulae-Problems on Time and Work-Solved examples and Problems. -Cost price, selling price, Gain, Loss-Problems based on Profit and loss.

UNIT V: Problems on Ages

Formulae-Problems on Ages-Age problems involving a single person-Age problems involving more than one person-Solved Examples-Problems.

Reference:

1. Quantitative Aptitude, R.S. Agarwal



Signature of the HOD
The Head
Dept Of Mathematic.
Shrimati Indira Gandhi College
Tiruchirapalli - 620 002

SHRIMATI INDIRA GANDHI COLLEGE,
(Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC)
TIRUCHIRAPPALLI - 620 002.
PG & Research Department of Mathematics & Department of Physics

Syllabus
Quantitative Aptitude II

UNIT I: Percentage

Definition-Important facts and Formulae-Concept of Percentage-Results on population-Results on Depreciation-Solved Examples-Problems

UNIT II: Calendar

Calendar Short cuts -Important formulae -Worked examples-simple problems

UNIT III: Time and Distance

Definition-Average speed- Same Distance-Different Distance-Problems based on stoppage time.

UNIT IV: Problems on Trains

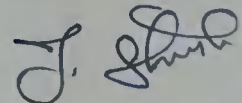
Basic concept-Formulae-Different type of objects-Two trains crossing each other in both directions.

UNIT V: Problems on Numbers

Number system facts and formulae-Number System-Worked Examples-Simple Problems

Reference:

1. Quantitative Aptitude, R.S. Agarwal



Signature of the HOD
The Head
Dept Of Mathematic
Shrimati Indira Gandhi College
Tiruchirapalli - 620 002

PG & Research Department of Commerce
of



SHRIMATI INDIRA GANDHI COLLEGE

Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC,
Tiruchtrappalli - 620 002

Organizes a
Certificate Course

on

Evolution on GST



06.09.2021 to
22.11.2021



2.30 p.m. to 3.30 p.m.



J&D Block -306 & 307

Sri.Thotta P.V. Ramarajan
President

Dr X.Meena
Secretary

Sri.K.Chandrasekaran M.S
Chief Executive Officer

Smt S.Aparna M.B.A.,M.Phil.,
Director

EVOLUTION OF GST (GOODS AND SERVICES TAX)

Objectives:

- To help develop skills of different taxation, finance, and accounting professionals. Students know about the GST and its implications.
- To create awareness of GST and how it is calculated.

UNIT - I

Tax – Introduction, Meaning, Classification of Tax, Direct and Indirect Taxation- Indirect taxation applicable to few commodities levied by either Central or State Government. GST – Fundamental Concepts - Objectives – Advantages.

UNIT - II

Introduction of Goods and Services Tax, 2017 (GST) And Registration Meaning of GST – Scope – Features – GST Council - Classification of GST – CGST – IGST – SGST – Definitions – Person – Business – Goods – Services – Registration Procedures, Main features of GST Law.

UNIT - III

Impact of GST – GST Council - Constitution – Structure – Action Plan, CGST/SGST: Important Terms and Definitions under Central Goods and Service Tax Act, 2017 and State Goods and Service Basic elements of GST.

UNIT - IV

Registration of GST - Value and Supply - Procedure – Legal provisions applicable for GST Registration – Compulsory registration. Cancellation, Surrender and Revocation of the GST Registration

UNIT - V

Overview of GST Law - Computation of taxable value and tax liability – Comparative calculations with previous tax laws - Composition Levy Scheme in GST – Features, Merits & Demerits

Reference:

1. Goods and Services Tax (G.S.T) | 8th Revised Edition Paperback – 1 January 2021, by Dr. H.C. Mehrotra (Author), Prof. V.P. Agarwal (Author)
2. Handbook On Goods & Services Tax (GST) for CA Inter By CA Pushendra Sisodia.


The Head
Dept. of Commerce
Shrimati Indira Gandhi College
Tiruchirappalli-620 002.



Department of Computer science, IT &
Computer Applications

of

SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at "A" Grade (3rd cycle) by NAAC)

TIRUCHIRAPALLI-620 002

Computer & Internet Skills



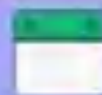
Resource Person

Dr .V. Mathimalar, Ms. V. Vetriselvi,
Ms. R. Indra, Ms. P. Ananthi,
Dr. S. Rethinavalli, Ms. S. S. Nachiya,
Ms. Vijiparthasarathy, Ms. C. Shyamaladevi

PG (Bio chemistry, Social Work, Commerce, Tamil)
UG (BBA, B. Lit, Micro-Biology, Fashion Technology)



1.15 pm to 2.15 pm



22.7.2021 to 2.12.2021



Google Meet

20.07.2021

Trichy-2

Circular

Department of Computer Science, IT and Computer Applications is planning to conduct coaching classes on "Data Entry Operations" for the students of II PG (Biochemistry, M.Com, MSW) and II & III UG(B.Lit.,B.B.A.,Microbiology, Fashion Technology, Chemistry) to enhance their skills for attending placement. All the students are expected to participate the classes without fail.

Ms. N. Vijayalakshmi
Ms. N. VIJAYALAKSHMI,
M.Sc.,M.Phil.,NET,SET,
Head, Dept. of Computer Science,
I.T. and Computer Applications,
Shrimati In. College,
Trichy-2.

SYLLABUS

DEO - FUNDAMENTALS OF COMPUTERS

Objective: To Provide the Basic Concepts in Computer and Information Technology

Unit I

Introduction to Computers - Classification of Digital Computer - Memory Units - Auxiliary Storage Devices - Input Devices - Output Devices.

Unit II

Introduction to Computer Software - Operating System - Programming Languages- Introduction to Word Processing: Basic Capabilities of Word Processing - Features of Word Processing - Formatting - Tables - Case Study: Ms-Word.

Unit III

Electronic Spreadsheets - Ms-Excel- Data Base Management System- Data Processing-Relational Database - Case Study: Ms-Access.

Unit IV

Presentation Software- Presentation Basics- Case study: Ms-PowerPoint.

Unit V

Internet and World Wide Web - Electronic Mail - Applications of Computers in Home, Business and Industry, Education and Training , Entertainment, Science, Medicine and Engineering.

Text Book:

Fundamentals of Information Technology, Alexis Leon and Mathews Leon, Vikas Publishing House Pvt. Ltd, 2009.

N. Vijayalakshmi
Ms. N. VIJAYALAKSHMI,
M.Sc.,M.Phil.,NET,SET,
Head, Dept. of Computer Science,
I.T. and Computer Applications,
Shrimati Indira Gandhi College,
Tiruchirappalli.



VALUE-ADDED COURSE

Departments of Computer Science ,IT &
Computer Applications

Core Java Programming



Starts from July 2021 - December 2021

Duration 60 Hrs



- Live Projects
- Extended lab support
- Hands-on-training



- 1 Year B.Sc CS, BCA, B.Sc IT
- 1 Year M.Sc CS, M.Sc IT , M.Sc Mathematics



InLustro Learning Pvt . Ltd
Website: www.inlustro.net/
Mail : support@inlustro.co



Shrimati Indira Gandhi College
Website: <https://www.sigc.edu/>
Mail : contact@sigc.edu



InLustro

Your Learning Comrade

Curriculum

Core JAVA

First Semester

**Academic Year
2021 - 2022**

InLustro

CORE JAVA

SYLLABUS

OBJECTIVES OF THE COURSE

- Students will understand the basic syntax of the Java programming language.
- Students will understand the principles of object-oriented programming and how they are applied in Java.
- Students will understand the concepts of Exception Handling and Threads
- Students will gain experience with basic Input/Output operations and GUI programming

Unit 1: Introduction to Java Programming

- Subunit 1.1: Introduction to the Java Programming Language
- Subunit 1.2: Setting up the development environment (Eclipse IDE)
- Subunit 1.3: Basic syntax (comments, data types, variables, operators, control flow)

Unit 2: Object-Oriented Programming

- Subunit 2.1: Classes, objects, and methods
- Subunit 2.2: Encapsulation, inheritance, and polymorphism
- Subunit 2.3: Abstract classes and interfaces
- Subunit 2.4: Interfaces and polymorphism

Unit 3: Exception Handling and Collections

- Subunit 3.1: Try-catch-finally
- Subunit 3.2: Built-in exceptions and custom exceptions
- Subunit 3.3: Arrays, ArrayList, HashMap, and other collections
- Subunit 3.4: Sets, Maps, Queues, and comparison
- Subunit 3.5: Generics and type-safe collections

Unit 4: Input and Output

- Subunit 4.1: Reading and writing to the console
- Subunit 4.2: Reading and writing to files
- Subunit 4.3: Input/Output Streams
- Subunit 4.4: File I/O
- Subunit 4.5: Serialization and Deserialization

Unit 5: Threads and Concurrency

- Subunit 5.1: Introduction to Threads and Concurrency
- Subunit 5.2: Threads, Runnable and Executor Framework
- Subunit 5.3: Synchronization

Learning Outcome

- Students will be able to write and run Java programs using the Eclipse IDE, including basic constructs such as variables, data types, operators, control flow, and loops.
- Students will be able to create Java programs using classes, objects, inheritance, polymorphism, and encapsulation, and explain the concepts of encapsulation, inheritance, and polymorphism.
- Students will be able to design, use and implement Exception Handling in their code and able to understand the concepts of thread and write concurrent programs
- Students will be able to read and write data to files and console and create simple graphical user interfaces using AWT and Swing, as well as an introduction to JavaFX

Teacher: Pavani Scinde



VALUE-ADDED COURSE

Departments of Computer Science ,IT &
Computer Applications

Data Structures and Algorithms

Starts from July 2021 - December 2021

Duration 60 Hrs

- Live Projects
- Extended lab support
- Hands-on-training



- II Year and III Year B.Sc CS, BCA, B.Sc IT
- II Year M.Sc CS, M.Sc IT, M.Sc Physics, M.Sc Mathematics



InLustro Learning Pvt . Ltd
Website: www.inlustro.net/
Mail : support@inlustro.co



Shrimati Indira Gandhi College
Website: <https://www.sigc.edu/>
Mail : contact@sigc.edu



InLustro

Your Learning Comrade

Curriculum

Data Structures and Algorithms

First Semester

Academic Year 2021 - 2022

InLustro

DATA STRUCTURES AND ALGORITHMS

SYLLABUS

OBJECTIVES OF THE COURSE

- To introduce the students basic concepts of Data Structures and Problem Solving.
- Develop algorithms for manipulating stacks, queues, linked lists, hash tables, trees, and graphs.
- Develop the data structures for implementing the above algorithms.
- Design recursive and divide and conquer algorithms.
- Familiarize the student with the issues of Time and Space complexity and examine various algorithms from this perspective.

UNIT 1: ANALYSIS OF ALGORITHMS, RECURSION, ARRAYS & STRINGS

- Growth of functions - Asymptotic Notations Omega, Theta,
- Recursion Tree Method & Space Complexity
- Introduction to Recursion & Tail Recursion
- Insertion, Deletion, Updation, Shifting elements, and other operations in an Array
- Searching and Sorting
- Problems based on Recursion, Array Manipulations, and String manipulations

UNIT 2: LINKED LISTS, STACKS, AND QUEUES

- Implementation of Linked Lists - Singly Linked List, Doubly Linked List, and Circular Linked List.
- Implementation of insertion, deletion, traversal, and reversal operations for Linked Lists.
- Problems based on Linked List.
- Implementation of Stacks and Queues using arrays and linked lists.
- Problems based on Stacks and Queues.

UNIT 3: TREES, BINARY SEARCH TREES, AND HEAPS

- Binary Tree - Implementation, Traversal, and Major Concepts
- Binary Search Tree - Implementation, Insertion, Deletion, and other operations
- AVL Trees and Red Black Trees and Applications of BST
- Heaps - Implementation and other operations
- Problems based on Trees, BST, and Heaps

UNIT 4: HASH TABLES AND GRAPHS

- Introduction to Hashing, Direct Address Table & Collision Handling, Chaining, Open Addressing & Double Hashing.
- Introduction to Graphs - Types, Representations, BFS, DFS and its applications - Detect Cycle in Undirected Graph, Detect Cycle in Directed Graph, Topological Sorting, Shortest Path Problems
- Prim's Algorithm, Dijkstra's Algorithm, Bellman Ford Algorithm, Kosaraju's Algorithm, Articulation Point, Bridges in Graph, Tarjan's Algorithm
- Coding Problems involving Hash Maps and Graphs

UNIT 5: GREEDY ALGORITHMS AND OTHER ADVANCED TOPICS

- Greedy Algorithms - Activity Selection Problem, Fractional Knapsack, Job sequencing problem, and Huffman Encoding along with other typical problems.
- Dynamic Programming - Memoization, Tabulation, LCS and its variations, Coin Change, KnapSack, LIS and its variations, Egg Drop Puzzle, Subset Sum, Matrix Chain Multiplication, Palindrome Partitioning
- Backtracking Problems
- Trie, Segment Tree and Disjoint Sets
- Problems based on Greedy Algorithms, Dynamic Programming, Backtracking Problems, and other advanced concepts covered in this unit.

COURSE LEARNING OUTCOMES

- On successful completion of the course, the students will be able to
- Apply various data structures such as stack, queue, hash table, priority queue, binary search tree, graph, and string to solve programming challenges.
- Apply basic algorithmic techniques such as greedy algorithms, binary search, sorting, and dynamic programming to solve programming challenges.
- Apply graph and string algorithms to solve real-world challenges: finding the shortest paths on huge maps and assembling genomes from millions of pieces.
- Solve complex programming challenges using advanced techniques: maximum flow, linear programming, approximate algorithms, SAT-solvers, and streaming.

Teacher: Subha





SHRIMATI INDIRA GANDHI COLLEGE

Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

Tiruchirappalli-620 002

Organises

Value added course in **DIGITAL MARKETING**



DATE : 26/07/2021 onwards
DURATION : 40 Hours
TIME : 1.15p.m. to 2.15p.m.
MODE : Online 

Students from any major can participate

Digital Marketing

Course Outline

The contents of this course are designed to support the course objectives. The following focus areas are included in this course:

- Module 1: Introduction to Digital Marketing
 - i. About Digital Marketing
 - ii. Types of Marketing
 - iii. Importance of Digital Marketing
 - iv. Career in Digital Marketing
 - v. Pros and Cons of Digital Marketing
- Module 2: Market Research
 - i. Introduction & Purpose of Market Research
 - ii. Market Research Tools
 - iii. Google Form creation
 - iv. Microsoft Form creation
 - v. Digital Marketing Tools: Similarweb, Google Trends, Alexa, CANVA
- Module 3: Website Design
 - i. What is Website & Why it is important for business?
 - ii. What is Domain & How to purchase Domain?
 - iii. What is Hosting, Types of Hosting & How to purchase?
 - iv. Website creation using WIX Website builder
 - v. Blog creation
 - vi. Website creation using WordPress
 - vii. Ecommerce Website creation using Shopify
- Module 4: Search Engine Optimization (SEO)
 - i. Introduction to Search Engine Optimization & how does it works?
 - ii. Web search Market Share and Volume
 - iii. How to rank a website
 - iv. Keywords Research Tools: Keyword Generator, Keyword Surfer, Soovle, Word Stream
 - v. SEO Links
- Module 5: Search Engine Marketing (SEM)
 - i. Introduction to Search Engine Marketing
 - ii. Difference between SEO & SEM
 - iii. Introduction to Google Ads
- Module 6: Analytics
 - i. Introduction to Google Analytics
- Module 7: Social Media Marketing
 - i. Importance of Social Media Marketing
 - ii. How to Advertise in Facebook?
 - iii. How to Advertise in YouTube?
 - iv. How to Advertise in Instagram?



SHRIMATI INDIRA GANDHI COLLEGE


Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

Tiruchirappalli-620 002

Organises

Value added course in **ADVANCED EXCEL**



DATE : 2/08/2021 onwards
DURATION : 30 Hours
TIME : 1.15p.m. to 2.15p.m.
MODE : Online 

Students from any major can participate

TOPIC : DATA ANALYSIS WITH EXCEL

COURSE CONTENT

Topic	Sub-Topic	Comments
BASIC Excel: Introduction to Excel and basic formulae	Worksheets, Ribbons, Number of columns and rows in each sheet, Adding/Removing Rows and columns	How to use excel, an overall view of the ribbon and worksheets. How to add/remove elements in the ribbon. Adding/Removing/Hiding Sheets
	Cell Reference, cell formats, keyboard shortcuts	Cell address, cell referencing across worksheets and workbooks
	Text Functions (Concatenate, find, left, right, mid, len, lower, upper, trim, replace, text), Math Functions (Sum+variants, count+variants, average+variants, min, max), text to columns	Overview of each function with working examples
	Excel Tables Error Checking, Error Types (#DIV/0 — #VALUE! — #REF! — #NAME? — #NUM! — #N/A — #NULL!)	How to differentiate errors and find errors easily
BASIC Excel: Lookup/Reference Functions	Round, Roundup, Rounddown, subtotal	How to do rounding
	Index & Match	Overview of the individual index and match functions and how it can be used together

	Vlookup and Hlookup	Overview of the function and importance of range lookups
	Named ranges and dynamic named ranges, Array Functions	How to create and track named ranges
BASIC Excel: More Formulae, Data Validation	If, nested if, iferror, and, or, not,true, false	Overview of each function with working examples
	Isblank, iserror, istext, isnontext, isnumber, cell()	Overview of each function with working examples
	Date, Datevalue, day, month, year, today()	Overview of each function with working examples
	time, hour, minute, second, now()	Overview of each function with working examples
	Data validation using lists	How to use data validation to restrict data entry to a cell
	Data validation for predefined data types	
Intermediate Excel: Conditional Formatting, Sorting & Filters	Formatting Numerical Values, Formatting Texts	How to represent data using different conditional formatting techniques
	Data bars, color scales	
	Sorting	Sorting one column, sorting multiple columns
	Data Filtering	Data Filters, Filtering based on color
Intermediate Excel: Advanced Data Filtering	Advanced data filtering criteria	Using advanced filters to identify required records. Different ways to use advanced filters
	Filter in place or copy to new location	
	Filtering unique records	
Intermediate Excel: Charts	Line, Pie, Scatter plots	How to build and tweak different aspects of a chart
	Formatting chart axis, data labels, legends, chart titles	

	Creating Non Standard Charts	
	Introduction to Sparklines	
Intermediate Excel: Pivot Tables	Creating pivot tables, classic display	How to conduct an analysis of given data using pivot tables
	Show/hide total, error/empty cell display option, formatting pivot tables	
	Introduction to Power Pivots	

NAME OF THE TRAINER : MS.KAMAL RAI



SHRIMATI INDIRA GANDHI COLLEGE

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Tiruchirappalli-620 002

**DEPARTMENT OF MICROBIOLOGY,
HOSPITAL ADMINISTRATION AND BIOCHEMISTRY**

PLACEMENT TRAINING IN MEDICAL CODING



DATE : 25.08.2021 onwards

DURATION : 60 Days

TIME : 1.15 p.m. to 2.15 p.m.

MODE : Online 

Final year UG and PG students are invited to join



98407 85759
98847 12426

No 70/2 Market road, Arani, 632301, Tiruvannamalai district, Tamilnadu
E-mail : amrahealthcarebpo@gmail.com, Web: www.amrahealth.com

Date :10.11.2022

OUR MISSION AND VISION

MISSION

Started in the year 2017 AMRA's mission is to train people and certify graduates from both science and non science graduates

Our mission is also to provide job oriented program and provide an entry to the medical coding/billing companies.

Our primary focus is provide quality training and provide good knowledge to the trainees to compete with the other people in the industry and achieve peak in their career

VISION

We in AMRA would like to extend our training across the globe through internet (online training)

We already are training people from the USA and UAE.

We are also looking to start projects and provide job opportunities for both rural and urban graduates

Global Training & Operation Head
Yuvarajan Balakrishnan, CPC

Director
N. Rekharukmani




Phone : 0431-2701453

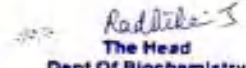
SHRIMATI INDIRA GANDHI COLLEGE

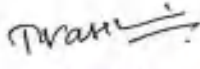
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Chatram Bus Stand, Tiruchirappalli - 620 002.

SKILL BASED CERTIFICATE COURSE ON MEDICAL CODING SYLLABUS

Unit.	Topics
Unit 1	Introduction to medical coding, Ice breaking session, basic word structure, Terms pertaining to body as a whole
Unit 2	Digestive system Urinary system
Unit 3	Male & female reproductive system , respiratory system Cardiovascular system , nervous system musculoskeletal system
Unit 4	Integumentary, sense organs + CPT outline +modifiers
Unit 5	ICD 10 complete chapters with guidelines


The Head
Dept Of Microbiology
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002


The Head
Dept Of Biochemistry
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002.


THE HEAD
Department of Hospital Administration
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002



Phone : 0431-2701453

SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at "A" Grade (3rd Cycle) by NAAC)


Chatram Bus Stand, Tiruchirappalli - 620 002.


24.12.2021

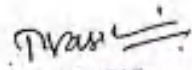
SKILL BASED CERTIFICATE COURSE ON MEDICAL CODING

Report

The Departments of Biochemistry, Microbiology, and Hospital Administration in association with AMRA Medical Coding Institute, Tiruchirappalli, an Institute which provides Training and Placement for the life science students in Medical coding, conducted a skill based certificate course on Medical coding to the students of life science departments by virtual mode to up skill the knowledge on basics of Medical Coding. The certificate course was conducted from 25.08.2021 to 24.12.2021. The Resource persons for the programme were Mr.Yuvarajan Balakrishnan and Ms Sasikala. At the end of the training programme examinations were conducted and certificates were issued to all the students. A total of 171 students from UG and PG level from all three Departments enrolled, trained and received the certificates.


The Head
Dept Of Microbiology
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002.


The Head
Dept Of Biochemistry
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002.

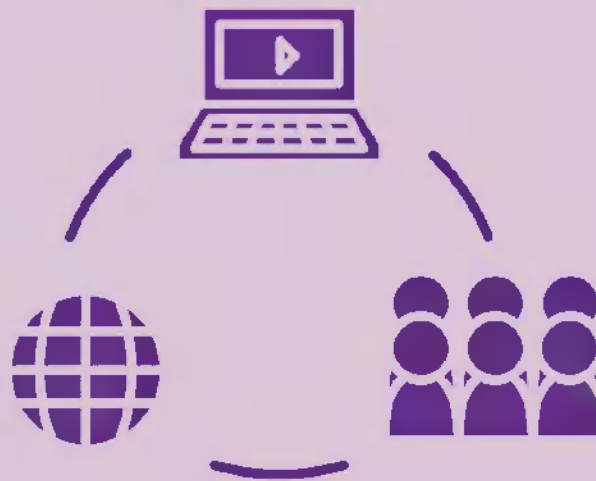

THE HEAD
Department of Hospital Administration
Shrimati Indira Gandhi College
Tiruchirappalli - 620 002



DEPARTMENT OF ENGLISH
of
SHRIMATI INDIRA GANDHI COLLEGE


Nationally Accredited At "A" Grade(3 rd cycle by NAAC)
Tiruchirappalli-620002


conducts
Communication Skills
Development Programme




Resource Persons
Faculty of the English
Department

Beneficiary
Final year UG and PG
students of SIGC

 04.04.22 - 29.04.22

 01.15pm-02.15pm

 Google Meet

SHRIMATI INDIRA GANDHI COLLEGE
TIRUCHIRAPALLI – 620 002
(Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC)
DEPARTMENT OF ENGLISH
PLACEMENT TRAINING PROGRAMME
UG SYLLABUS

UNIT-I

1. Vocabulary
2. Sentence making

UNIT-II

1. Soft skills, aptitude training, verbal training, communication development.
2. Dialogue exchange.

UNIT- III

1. Personality development.
2. Group discussion.

UNIT -IV

1. Bench Marking
2. Interview Techniques, Resume building & covering letters, personal interview, mock interview, career planning & designing.

UNIT- V

1. Story Telling.
2. Training students for online test, written test, Competitive Exams.



M. REMA
Head Department of English
Shrimati Indira Gandhi College
Trichy-2. -

SHRIMATI INDIRA GANDHI COLLEGE
TIRUCHIRAPALLI – 620 002
(Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC)
DEPARTMENT OF ENGLISH
PLACEMENT TRAINING PROGRAMME
PG SYLLABUS

UNIT-I

1. General Grammar.
2. Hints Development.

UNIT-II

1. Note Making.
2. Report writing.

UNIT-III

1. Spotting Errors
2. Letter writing

UNIT-IV

1. E- mail writing.
2. Comprehension.

UNIT-V

1. Interview Techniques.
2. Resume writing.
3. Profile & its Importance.

M. Rema

M. REMA
Head Department of English
Shrimati Indira Gandhi College
Trichy-2. -



SHRIMATI INDIRA GANDHI COLLEGE

Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

Tiruchirappalli - 620 002

Department of Computer Science, IT and Computer Applications in
association with Training & Placement Division

JAVA FUNDAMENTALS



DATE : 04.11.2021 onwards

TIME : 3.00 p.m. to 4.00 p.m.

DURATION : 30 Days

MODE : Online

First Year PG & Second Year UG students are invited to join



SHRIMATI INDIRA GANDHI COLLEGE

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Tiruchirappalli - 620 002

Department of Computer Science, IT and Computer Applications in
association with Training & Placement Division

ARTIFICIAL INTELLIGENCE WITH MACHINE LEARNING



DATE : 04.11.2021 onwards

TIME : 3.00 p.m. to 4.00 p.m.

DURATION : 30 Days

MODE : Online

Third Year BCA & Second Year PG students are invited to join



SHRIMATI INDIRA GANDHI COLLEGE

Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

Tiruchirappalli - 620 002

Department of Computer Science, IT and Computer Applications in
association with Training & Placement Division

ORACLE CLOUD INFRASTRUCTURE FOUNDATIONS



DATE : 30.11.2021 onwards

TIME : 3.00 p.m. to 4.00 p.m.

DURATION : 30 Days

MODE : Online

Second Year B.Sc (CS) & Third Year BCA & Second Year PG students are invited to join



SHRIMATI INDIRA GANDHI COLLEGE

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Tiruchirappalli - 620 002

Department of Computer Science, IT and Computer Applications in
association with Training & Placement Division

DATABASE FOUNDATIONS



DATE : 13.09.2022 onwards

TIME : 3.00 p.m. to 4.00 p.m.

DURATION : 30 Days

MODE : Online

Second Year UG & Third Year B.Sc (IT) & First PG students are invited to join



SHRIMATI INDIRA GANDHI COLLEGE

Nationally Accredited at 'A' Grade (3rd Cycle) by NAAC

Tiruchirappalli - 620 002

Department of Computer Science, IT and Computer Applications in
association with Training & Placement Division

JAVA FOUNDATIONS



DATE : 12.10.2022 onwards

TIME : 3.00 p.m. to 4.00 p.m.

DURATION : 30 Days

MODE : Online

First Year UG students are invited to join

Java Fundamentals – Course Description

Overview

This course engages students with little or no programming experience to create Java programs. Participants are introduced to object-oriented programming concepts, terminology, and syntax, and the steps required to create basic Java programs using the Alice, Greenfoot, and Eclipse interactive development environments. Hands-on practices figure prominently throughout the course so students can experience firsthand the power of computer programming.

Available Curriculum Languages:

- Arabic, Simplified Chinese, English, French, Indonesian, Japanese, Brazilian Portuguese, Spanish

Duration

- 60 hours (one semester)

Target Audiences

Primary Audience

- College/university faculty who teach computer programming, information communications technology (ICT), or a related subject
- Secondary school teachers who teach computer programming

Secondary Audience

- None

Prerequisites

Required

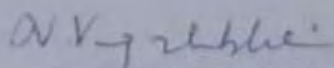
- Basic understanding of at least one programming language
- The ability to follow software installation instructions and install Alice, Greenfoot, and Eclipse on a computer

Suggested

- Getting Started with Java Using Alice and Creating Java Programs with Greenfoot or previous experience with at least one programming language

Suggested Next Courses

- Java Programming


Ms. N. VIJAYALAKSHMI,
M.Sc., M.Phil., NET, SET,
Head, Dept. of Computer Science,
I.T. and Computer Applications,
Shrimati Indira Gandhi College,
Trichy-2.

Java Foundations – Course Description

Overview

This course of study engages students with little programming experience. Students are introduced to object-oriented concepts, terminology, and syntax, and the steps required to create basic Java programs using hands-on, engaging activities. Students will learn the concepts of Java programming, design object-oriented applications with Java and create Java programs using hands-on, engaging activities.

Available Curriculum Languages:

- Arabic, Simplified Chinese, English, French, Indonesian, Japanese, Brazilian Portuguese, Russian, Spanish

Duration

- Recommended total course time: 90 hours*
- Professional education credit hours for educators who complete Oracle Academy training: 30

**Course time includes instruction, self-study/homework, practices, projects and assessment*

Target Audiences

Educators

- Technical, vocational, and 2- and 4-year college and university faculty members who teach computer programming, information communications technology (ICT), or a related subject at a foundational level.
- Secondary and vocational school teachers who teach computer programming.

Students

- Students who wish learn Java programming and build their Object Oriented Programming experience using Java.
- This course is a suitable foundational class for computer science majors, and when taught in sequence with Java Programming may be used to prepare students for the AP Computer Science A exam.

Prerequisites

Required

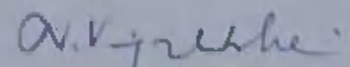
- Oracle Academy Workshop - Getting Started with Java Using Alice
- Oracle Academy Workshop - Creating Java Programs with Greenfoot

Suggested

- Oracle Academy Course – Java Fundamentals

Suggested Next Courses

- Oracle Academy Course - Java Programming



Ms. N. VIJAYALAKSHMI, Owner

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Head, Dept. of Computer Science,
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Database Foundations – Course Description

Overview

This course introduces students to basic relational database concepts. The course teaches students relational database terminology, as well as data modeling concepts, building Entity Relationship Diagrams (ERDs), and mapping ERDs.

ERDs are utilized to build ERDs and The Structured Query Language (SQL) is used to interact with a relational database and manipulate data within the database. Hands-on activities are utilized to provide practical, hands-on, engaging activities. Leveraging project-based learning techniques, students will create and work with projects which challenge them to design, implement, and demonstrate a database solution for a business or organization.

Available Curriculum Languages:

- Arabic, Simplified Chinese, English, French, Indonesian, Japanese, Brazilian Portuguese, Russian, Spanish

Duration

- Recommended total course time: 90 hours*
- Professional education credit hours for educators who complete Oracle Academy training: 50

*Course time includes instruction, self-study/homework, practices, projects and assessment.

Target Audiences

Educators

- Technical, vocational and 2- and 4-year college and university faculty members who teach computer science, information communications technology (ICT), data science, business or a related subject
- Secondary and vocational school teachers who teach computer science, ICT, or a related subject

Students

- Students who wish to learn the techniques and tools to design, build and extract information from a database.
- Students who possess basic mathematical, logical, and analytical problem-solving skills.
- Novice programmers, as well as those at advanced levels, who prefer to start learning the basis for the SQL programming language at an introductory level.
- This foundational course is suitable for computer science majors and non-majors alike.

Prerequisites

Required

- General knowledge of the purpose of a database

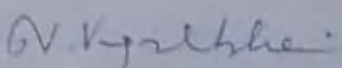
Suggested

- Previous experience with a database application

Suggested Next Courses

- Database Design and Programming with SQL

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ORACLE ACADEMY – CLOUD COMPUTING SYLLABUS

Oracle Cloud Infrastructure Foundations | Course Map

Oracle Cloud Infrastructure Foundations | Course Objectives

Technical Requirements for Curriculum

1. Oracle Cloud Infra Structure Introduction

1-1: Getting Started with Oracle Cloud Infra Structure Video

2. Core Infrastructure - Virtual Cloud Network

2-1: Virtual Cloud Network

2-2: CIDR

2-3: Introduction to OCI VCN Service

2-4: IP Addresses in VCN

2-5: Routing and Gateways

2-6: Web Server with Access to the Internet

2-7: Demo - NAT Gateway

2-8: Peering

2-9: Security Lists and Network Security Groups

2-10: DNS in VCN

3. Core Infrastructure – Connectivity

3-1: Connectivity

3-2: Introduction to OCI VPN Connect

3-3: VPN Connect Demo

4. Core Infrastructure – Compute

4.1: Introduction to OCI Compute Service

4.2: Demo of OCI Compute Service

4.3: Custom Images

4.4: Boot Volumes

4.5: Instance Configuration, Pools and Autoscaling

4.6: Instance Metadata and Lifecycle

5. Core Infrastructure – Block Volumes

5.1: Introduction to OCI Local NVMe Storage

5.2: Introduction to OCI Block Volume Service

5.3: Backup and Restoration

5.4: Clones and Volume Groups

5.5: Boot Volumes

6. Core Infrastructure – File Storage

6.1: Introduction to OCI File Storage Service

6.2: File Storage Service Security

6.3: File Storage Service Snapshots

7. Core Infrastructure – Object Storage

7.1: Introduction to OCI Object Storage

7.2: OCI Object Storage Service

7.3: Object Storage Service Capabilities

8. Core Infrastructure – Load Balancing

8.1: Introduction to OCI Load Balancing Service

8.2: OCI Load Balancing Service

8.3: Private Load Balancer

N. Vijayalakshmi

MS. N. VIJAYALAKSHMI,

M.Sc, M.Phil, NET, SET,

Head, Dept of Computer Science,

I.T. and Computer Applications,

Shri Mata Jyoti Gandhi College,

Tirunelveli

ORACLE ACADEMY –DATA SCIENCE SYLLABUS

1. Course Resources

- 1.1 AiML Artificial Intelligence with Machine Learning in Java
- 1.2 AiML Artificial Intelligence with Machine Learning in Java Course Objectives
- 1.3 Java Curriculum Software Requirements

2. AiML

- 2-1: Introduction to AI
- 2-2: Data and Information
- 2-3: Categorizing Data

3. Machine Learning

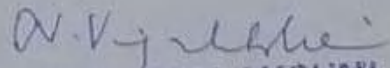
- 3.1 Machine Learning Workflow

4. Trees and Recursion

- 4.1: Recursion
- 4.2: Binary Trees
- 4.3: Tree Traversal

5. Entropy and the ID3 Algorithm

- 5.1: Decision Tree Algorithms
- 5.2: Information Entropy
- 5.3: AiML ID3 Worked Example
- 5.4: AiML Create an ID3 Tree


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VALUE ADDED COURSE

PYTHON PROGRAMMING

Department of Computer Science , I.T and
Computer Applications

*Starts from
December 2021 - May 2022*

- Live Projects
- Extended Lab Support
- Hands on-training



II Year B.Sc Computer Science, B.Sc Information Technology
and
Bachelor of Computer Applications



Inlustro Training Pvt Ltd.,
www.inlustro.net
Mail : support@inlustro.net



Shrimati Indira Gandhi College
website : <https://www.sigc.edu/>
Mail : Contact@sigc.edu





InLustro

Your Learning Comrade

Curriculum

**Python
Programming**

Second Semester

**Academic Year
2021 - 2022**

InLustro

PYTHON PROGRAMMING

SYLLABUS

OBJECTIVES OF THE COURSE

- To introduce the student to basic concepts of Python, Pandas & Data Visualization.
- To enable the students to write simple Python programs.
- To have a strong foundation for various applications of Python like Data Science, Machine Learning, and Artificial Intelligence.
- To induce strong programming concepts and enable the students to face technical interviews.

UNIT 1: INTRODUCTION, STRINGS, NUMBERS & MATH

- Introduction, Setting up Python, Your first Python Program
- String & String Methods
- Numbers and Math : Order of Operations, Built-in functions for working with numbers

UNIT 2: FUNCTIONS & LOOPS, DEBUGGING, CONDITIONALS

- Functions and Loops
- Finding & Fixing Code bugs
- Conditional Logic & Control Flow
- Testing a function

UNIT 3: TUPLES, LISTS, DICTIONARIES, OOP, MODULES

- Tuples, Lists & Dictionaries
- Object Oriented Programming
- Modules and Packages, Installing Packages with pip
- Testing a class

UNIT 4: FILE I/O, PACKAGES, DATABASES

- File Input and Output
- Installing Packages with pip
- Working with Databases

UNIT 5: WEB INTERACTION, SCIENTIFIC COMPUTING, GUI

- Interacting with the Web
- Scientific Computing

-
- Graphical User Interfaces

COURSE LEARNING OUTCOMES

- The students will be able to develop a strong competency in the language.
- The students will be capable of analyzing the given data and applying Python Programming to provide meaningful results.
- The students can apply the skills of Python in the fields of Data Science, Machine Learning, and Artificial Intelligence.
- The students will be able to Crack the programming interview in any Product/Service based firm.

Teacher: Nalini Raj



Nalini Raj



SHRIMATI INDIRA GANDHI COLLEGE

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Tiruchirappalli-620 002

Organises

Value added course in TALLY



DATE : 26/07/2021 onwards

DURATION : 40 Hours

TIME : 1.15p.m. to 2.15p.m.

MODE : Online



Students from any major can participate



SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at "A" Grade (3rd Cycle) by NAAC)

Chatram Bus Stand, Tiruchirappalli - 620 002.

Dr. Mrs. S. VIDHYALAKSHMI, M.Sc., M.Phil., B.Ed., Ph.D.,
Principal

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Fax : 0431-2702797
E-mail : sigctr@gmail.com
Website : www.sigc.edu
Webmail : principal@sigc.edu

Date – 22-12-2021

To

Mr. V.Poornaprakash
State Head, ICT Academy
Chennai

Greeting from Shrimati Indira Gandhi College,

We are happy to inform you that we have Successfully completed below Batch with Support of Trainer **Mr. Alagupandi S**

Batch - B1596 - 36 Days in "**Essentials of Tally**" to 524 students at "Shrimati Indira Gandhi College". (26th July 2021 – 15th October 2021)

S.No	Batch ID	Mode	College Name	Course Name	RM Name	Trainer Name	Start Date	End Date	No. of Students	No. of Hours
1	B1596	Online	Shrimati Indira Gandhi College	Essentials of Tally	Allan Joy	Alagupandi S	26-Jul-21	15-Oct-21	524	36

Training Details - Month and Date for the training and all training happened one hour for below date on Online Mode

Month	Date	Number of Hours
July	26,28,30	3
Aug	2,4,6,9,11,13,16,18,20,23,25,27,30	13
Sep	1,3,6,8,10,13,15,17,20,22,24,27,29,	13
Oct	1,4,6,8,11,13,15	7
(Per day 1 Hours) Total Hours		36

Note – Students Attendance is Attached for B1596


PRINCIPAL
Shrimati Indira Gandhi College
Tiruchirappalli-2