

MADHUSUDAN INSTITUTE OF CO-OPERATIVE MANAGEMENT, BHUBANESWAR.



SCHEME AND SYLLABUS FOR CERTIFICATE COURSE IN RESETTLEMENT 'O' LEVEL (16 WEEKS DURATION)



**Madhusudan Institute of Co-operative Management, Bhubaneswar
(AN Institution OF National Council For Cooperative Training, New Delhi,
Promoted BY Ministry of Cooperation, Govt. of India)**

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SCHEME AND SYLLABUS FOR CERTIFICATE COURSE IN RESETTLEMENT 'O' LEVEL

1	Title of the Course	Certificate Course in Resettlement 'O' Level		
2	Duration	12 Weeks		
3	Intake Capacity	30 Participants		
4	Objectives	a	To enable the participants to acquire the knowledge pertaining to fundamentals of Information Technology.	
b		To develop an interest in computational thinking and an understanding of the principles of problem-solving.		
c		To develop an understanding of how computing technology presents new ways to address problems; and to use computational thinking to analyse problems.		
5	Course Contents			
Sub No.	Course Title	Units	No of Sessions	Maximum Marks
1	Computer Fundamental & Networking	05	17	100
2	Object-Oriented Programming using JAVA	05	17	100
3	Internet Web Technology & E-Commerce	05	17	100
4	Database Management System	05	17	100
5	Fundamental of Management	05	17	100
6	JAVA Programming Practical	--	--	50
7	Web Technology (HTML) Practical	--	--	50
8	DBMS (MYSQL) Practical	--	--	50
9	Viva-Voce	--	--	50
Total		25	85	700

EXAMINATION

Sub No.	Course Title	Units	Internal Marks	External Marks	Total Marks
1	Computer Fundamental & Networking	05	40	60	100
2	Object-Oriented Programming using JAVA	05	40	60	100
3	Internet Web Technology & E-Commerce	05	40	60	100
4	Database Management System	05	40	60	100
5	Fundamental of Management	05	40	60	100
6	JAVA Programming Practical	--	50	--	50
7	Web Technology (HTML) Practical	--	50	--	50
8	DBMS (MYSQL) Practical	--	50	--	50
9	Viva-Voce	--	50	--	50
	Total	25			700

<p>SUBJECT-I Unit Sessions</p> <p>Objectives:</p>	<p>COMPUTER FUNDAMENTAL & NETWORKING</p> <p>Twenty five (25)</p> <ul style="list-style-type: none"> a) The main objective of this course is to introduce the fundamentals of computing devices and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software, the Internet, networking. b) To Understanding transferrable functions between different types of software. Differentiating between software types and common use cases. Applying computer fundamentals knowledge to other technology, including mobile devices. c) To, help Ex-servicemen to understand the importance of computer Hardware, Software and Networking.
<p>UNIT-1</p>	<p>Introduction to Computers & Basic Computer Organization</p> <p>Introduction, Definition, Characteristics of computer, Evolution of Computer, Block Diagram Of a computer, Generations of Computer, Classification Of Computers, Applications of Computer, Capabilities and limitations of computer. Role of I/O devices in a computer system. Input Units, Output Units & Storage Unit.</p>
<p>UNIT-2</p>	<p>Software</p> <p>Software and its needs, Types of S/W. System Software: Operating System, Utility Programs Programming Language: Machine Language, Assembly Language, High Level Language their advantages & disadvantages. Application S/Wand its types: Word Processing, Spread Sheets Presentation, Graphics, DBMS s/w. Functions, Measuring System Performance, Assemblers, Compilers and Interpreters. Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.</p>
<p>UNIT-3</p>	<p>Data Communication</p> <p>Communication Process, Data Transmission speed, Communication Types(modes), Data Transmission Medium, Modem and its working, characteristics, Types of Networks, Topologies, Computer Protocols, Concepts relating to networking.</p>
<p>UNIT-4</p>	<p>Communications and collaboration</p> <p>Basics of electronic mail; Getting an email account; Sending and receiving emails; Accessing sent emails; Using Emails; Document collaboration; Instant Messaging;</p>
<p>UNIT-5</p>	<p>Business Data Processing</p> <p>Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.</p>

SUBJECT-II Unit Sessions	Object-Oriented Programming using JAVA One Twenty five (25)
Objectives:	<ul style="list-style-type: none"> a) To understanding and practical mastery of object-oriented concepts. b) To provide fundamental knowledge of Computer Programming. c) To identify Java language components and how they work together in applications. d) To Demonstrate an ability to design and develop Java programs, analyze, and interpret object oriented data and report results.
UNIT-1	Introduction to Java : Basics of Java programming, Data types, Variables, Operators, Control structures including selection, Looping, Java methods, Overloading, Math class, Arrays in java.
UNIT-2	Objects and Classes : Basics of objects and classes in java, Constructors, Finalizer, Visibility modifiers, Methods and objects, Inbuilt classes like String, Character, String Buffer, File, this reference.
UNIT-3	Inheritance and Polymorphism : Inheritance in java, Super and sub class, Overriding, Object class, Polymorphism, Dynamic binding, Generic programming, Casting objects, Instance of operator, Abstract class, Interface in java, Package in java, UTIL package.
UNIT-4	Event and GUI programming : Event handling in java, Event types, Mouse and key events, GUI Basics, Panels, Frames, Layout Managers: Flow Layout, Border Layout, Grid Layout, GUI components like Buttons, Check Boxes, Radio Buttons, Labels, Text Fields, Text Areas, Combo Boxes, Lists, Scroll Bars, Sliders, Windows, Menus, Dialog Box, Applet and its life cycle, Introduction to swing.
UNIT-5	Connecting to Database : JDBC Type 1 to 4 drivers, Connecting to a database, querying a database and processing the results, updating data with JDBC, Data Access Object (DAO). Exception handling: Benefits of exception handling, the classification of exceptions - exception hierarchy, checked exceptions and unchecked exceptions, usage of try, catch, throw, throws and finally, creating own exception subclasses.

SUBJECT-III Unit Sessions	INTERNET WEB TECHNOLOGY & E-COMMERCE Twenty five (25)
Objectives:	<ul style="list-style-type: none"> a) To comprehend the basics of the internet and web terminologies. b) To allow businesses to reach a worldwide audience with their products and services. c) To allows people to buy and sell physical goods, services, and digital products over the internet rather than at a brick-and-mortar location.
UNIT – I	INTRODUCTION TO INTERNET : Introduction, Evolution of Internet, Internet Applications, Internet Addressing, Addressing Scheme, Ipv4 & IPv6, Network Byte Order, Domain Name Server and IP Addresses, Mapping
UNIT - II	INTRODUTION TO HTML TAG : The HTML, head, title, & body tags Headings, paragraphs, lists, The break tag, The image tag & source attribute Using the width, height, & alt attributes.
UNIT - III	INTRODUTION TO CASCADING STYLE SHEETS : Concept of CSS, Creating Style Sheet, CSS Properties, CSS Styling(Background, Text Format, Controlling Fonts), Working with block elements and objects, Working with Lists and Tables, CSS Id and Class, Box Model(Introduction, Border properties, Padding Properties, Margin properties), CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align, Pseudo class, Navigation Bar, Image Sprites, Attribute sector), CSS Color, Creating page Layout and Site Designs.
UNIT - IV	INTRODUTION TO WEB PUBLISHING OR HOSTING : Creating the Web Site, Saving the site, Working on the web site, Creating web site structure, Creating Titles for web pages, Themes-Publishing web sites.
UNIT - V	E-COMMERCE BUSINESS MODELS AND CONCEPTS, THE INTERNET AND WORLD WIDE WEB : E-commerce Business Models, Major Business to Consumer (B2C) business models, Major Business to Business (B2B) business models, Business models in emerging E-commerce areas, How the Internet and the web change business: strategy, structure and process, The Internet: Technology Background, The Internet Today, Internet II- The Future Infrastructure, The World Wide Web, The Internet and the Web : Features

SUBJECT-IV	DATABASE MANAGEMENT SYSTEM
Unit Sessions	Twenty five (25)
Objectives:	<ul style="list-style-type: none"> a) To understand the basic concepts and the applications of database systems. b) To Master the basics of SQL and construct queries using SQL c) To facilitate the creation of data structures and relieve the programmer of the problems of setting up complicated files. d) To Describe the fundamental elements of relational database management systems
UNIT - I	Data base System Applications, Purpose of Database Systems, View of Data – Data Abstraction – Instances and Schemas – data Models – the ER Model – Relational Model – Other Models – Database Languages – DDL – DML – database Access for applications Programs – data base Users and Administrator – Transaction Management – data base Architecture – Storage Manager – the Query Processor
UNIT - II	Relational Query Languages, Relational Operations. Relational Algebra – Selection and projection set operations – renaming – Joins – Division – Examples of Algebra overviews – Overview of the SQL Query Language – Basic Structure of SQL Queries, Set Operations, Aggregate Functions – GROUPBY – HAVING, Nested Sub queries, Views, Triggers.
UNIT - III	Normalization – Introduction, Non loss decomposition and functional dependencies, First, Second, and third normal forms – dependency preservation, Boyee/Codd normal form. Higher Normal Forms - Introduction, Multi-valued dependencies and Fourth normal form, Join dependencies and Fifth normal form
UNIT - IV	Transaction Concept- Transaction State- Implementation of Atomicity and Durability – Timestamp Based Protocols- Validation- Based Protocols – Multiple Granularity. Recovery and Atomicity – Log – Based Recovery – Recovery with Concurrent Transactions – Buffer Management – Failure with loss of nonvolatile storage-Advance Recovery systems- Remote Backup systems.
UNIT - V	File organization:- File organization – various kinds of indexes. Query Processing – Measures of query cost - Selection operation – Projection operation, - Join operation – set operation and aggregate operation – Relational Query Optimization – Transacting SQL queries – Estimating the cost – Equivalence Rules

SUBJECT-V Unit Sessions	FUNDAMENTAL OF MANAGEMENT Twenty five (25)
Objectives	a) All of the basic steps and processes that are necessary for any organization in order to run smoothly and effectively. b) To understand Survival, Profit and Growth of an organisation.
UNIT – I	Introduction Concepts, Objectives, Nature Scope and Significance of management Evolution of management thought-Contribution of Taylor, Weber and Fayol management.
UNIT - II	Planning: Concept, Objectives, Nature, Limitation, Process of planning, Importance, Forms, Techniques and Process of decision making.
UNIT - III	Organizing: Concept, Objectives, Nature of organizing, Types of Organization, delegation of authority, Authority and responsibilities, Centralization and Decentralization, Span of control.
UNIT - IV	Directing: Concept, Principles & Techniques of directing and Coordination Concept of leadership-Style. Importance, Styles, Supervision, Motivation, Importance & Theory of Motivation, Communication.
UNIT - V	Controlling: Concept, Principles, Process and Techniques of Controlling, Relationship between planning and controlling.