CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

DIPLOMA PROGRAMME IN COMPUTER SCIENCE AND ENGINEERING
Semester –VI
COURSE OF STUDY AND SCHEME OF EXAMINATION

S. No	Board of Study	Subject Code	Subject	Periods/Week (In Hours)			Scheme of Examination						Credit L+(T+P)/2
				L	T	P	Theory			Practical		Total Marks	
							ESE	CT	TA	ESE	TA		
1.	Mechanical Engg.	200615 (37)	Entrepreneurship Development	4	1	-	100	20	10	-	-	130	5
2.	Computer Science Engg	222611 (22)	Database Management system-II	3	1	-	100	20	20	-	-	140	4
3.	Computer Science Engg	222612 (22)	Computer Network	3	1	-	100	20	20	-	-	140	4
4.	Info. Tech.	233611 (33)	Dynamic Web Page Design	4	1	-	100	20	20	-	-	140	5
5	Info. Tech.	233614 (33)	Information services	3	2	-	100	20	20	-	-	140	4
6	Computer Science Engg	222621 (22)	Database Management system-II Lab	-	-	4	-	-	-	50	20	70	2
7	Computer Science Engg	222622 (22)	Major Project	-	-	5	-	-	-	100	70	170	3
8	Info Tech	233621 (33)	Dynamic Web Page Design Lab	-	-	4	-	-	-	50	20	70	2
TOTAL				17	6	13	500	100	90	200	110	1000	29

L : Lecture hours : T : Tutorial hours, P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment ;

CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A) **SEMESTER** : **VI**
B) **COURSE TITLE** : **ENTREPRENEURSHIP DEVELOPMENT**
C) **CODE** : **200615 (37)**
D) **BRANCH/DISCIPLINE** : **COMPUTER SCIENCE & ENGINEERING**
E) **RATIONALE**

It has been experienced in most parts of the world that entrepreneurship development is a means of rapid economic development vis-à-vis creation of gainful employment of masses. The myth that entrepreneurs are born and not made no longer holds good. Experiences of last few decades in India show that it is possible to develop entrepreneurs through planned efforts. These designed efforts are more essentially required in polytechnics where increasing unemployment has necessitated promoting self-employment/entrepreneurship as career option thereby creating more job providers than job seekers. This course focuses on inputs required for students to undertake entrepreneurial activities as career option.

F) **TEACHING AND EXMINATION SCHEME:**

Course Code	Periods/Week (In Hours)			Scheme of Examination					Credit L+(T+P)/2
	L	**T**	**P**	**Theory**			**Practical**		
				ESE	**CT**	**TA**	**ESE**	**TA**	**Total Marks**	
200615(37)	4	1	-	100	20	10	-	-	130	5

L: Lecture hours: T: Tutorial hours, P: Practical hours
ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment ;

G) **DISTRIBUTION OF MARKS AND HOURS:**

Sl. No.	Chapter No.	Chapter Name	Hours	Marks
1.	1.	Entrepreneurship Development	10	12
2.	2.	Forms of business organization	8	10
3.	3.	Institutional support for SSI	8	10
4.	4.	Planning a small scale industry	10	18
5.	5.	Management of small business firms	8	12
6.	6.	Project selection, formulation and appraisal	12	10
7.	7.	Problems of small industries	12	12
8.	8.	Entrepreneurial motivation training	12	10
		Total	**80**	**100**

H) DETAILED COURSE CONTENTS:
CHAPTER-1   Entrepreneurial Development

- Definition of entrepreneurship,
- Characteristics of entrepreneurs,
- Factors influencing entrepreneurship,
- Need for promotion of entrepreneurship and small business
- Entrepreneurial Environment
- Environmental analysis.
- Government policies for setting up new small enterprises
- Opportunities in service industries.

CHAPTER – 2   Forms of Business Organization

- Forms of ownership
- Sole Proprietorship
- Partnership
- Cooperative society
- Joint – stock company
- Private Limited Companies
- Public Limited Companies

CHAPTER – 3   Institutional support to SSI

- Institutional set up
- Industries centers,
- Industrial estates
- Institutional support at National level
- Institutional support at State level
- Commercial banks and financial institutions

CHAPTER – 4   Planning a SSI

- What is planning?
- Types of planning
- Importance of planning
- Steps in planning
- Steps in planning a SSI
- Technical dimensions for setting up an enterprise

CHAPTER-5 Management of Small Business Firm

- Functional areas of small business firm
- Fundamentals of Management
- Managerial effectiveness
- Essential data for effective control of small business
- Resource management
- Office management
- Employees Welfare & safety
- Factory rules and Labour Laws related to SSIs
- Sales Tax and Income Tax laws related to SSIs

CHAPTER-6 Project selection, Formulation & Appraisal

- Project selection & formulation
- Scope of project report
- Content & Format of Project report
- Need of Project Appraisal
- Steps of Project Appraisal

CHAPTER-7 Problems of Small industries

- Power shortages
- Project planning
- Finance
- Raw material
- Production constraints
- Marketing
- Personal constraints
- Regulations

CHAPTER-8 Entrepreneurial Motivation Training

- Achievement Motivation
- Creative thinking
- Risk taking abilities

I)   SUGGESTED INSTRUCTIONAL STRATEGIES:

- **Lecture Method.**

- **Industrial visits.**

- **Simulation**

- **Role play**

?? **Interaction with successful entrepreneurs**

?? **Demonstration.**

?? **Games**

J)   SUGGESTED LEARNING RESOURCES:

(a)   Reference Books :

Sl. No.	Title	Author, Publisher, Edition & Year
1.	Starting your own Business, A step-by-step Blue print for the First-time Entrepreneur	Stephen C. Harper, Mc Craw-Hill
2.	Harward Business Review on Entrepreneurship	Harvard Business School Press
3.	Entrepreneurship Development in small scale proceedings of National Seminar, DCSSI, New Delhi	Patel V.G.
4.	Entrepreneurship : Strategies & Resources	Abrams Grant Pass, Oregon: Oasis Press
5.	The Business Planning Guide	David H. Bangs Upstart Publishing Company, In Chicago
6.	Entrepreneurship development in India	Dr. C.B. Gupta Dr. N.P. Srinivasan Sultan Chand & Sons

LIST OF TERM WORK
    Term Work will consist of collecting following information by the students:

1.   Collect State industrial policy
2.   Report of interaction with successful entrepreneurs/industrial visits
3.   Prepare list of opportunities for business, service and industrial ventures
4.   Whom to approach for What?
5.   Facilities and incentives available from various support agencies

CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A) **SEMEST** : VI

B) **SUBJEC TITLE** : DATABASE MANAGEMENT SYSTEM -II

C) **CODE** : 222611 (22)

  D) **BRANCH/DISCIPLINE** : COMPUTER SCIENCE & ENGINEERING

E) **RATIONALE** :

The aim of this subject is to get broad understanding of the basic concepts of database system and relational database system in particular. The students will have theoretical foundation required for working with relational database products, such as SQL.

The student will develop the skills required to design database system taking into consideration functional dependencies, normalization, and entity-relationship and database security aspects using ORACLE RDBMS.

F) **TEACHING AND EXAMINATION SCHEME**

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
				Theory			Practical		Total Marks	
	L	T	P	ESE	CT	TA	ESE	TA		
222611(22)	3	1	-	100	20	20	-	-	140	4
222621(22)	-	-	4	-	-	-	50	20	70	2

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1	An Overview Of Database Management.	10	15
2	An Architecture For A Database System.	8	12
3	The Entity /Relationship Model	5	9
4	Relational Data Objects & Relational Algebra	6	10
5	Relational Data Integrity	6	10
6	Functional Dependencies	8	12
7	Normalization.	8	12
8	ORACLE RDBMS	8	12
9	PL/SQL in ORACLE	5	8
	TOTAL	**64**	**100**

H) DETAILED CONTENT	
CHAPTER-1	**AN OVERVIEW OF DATABASE MANAGEMENT**
	?? What is a database system? What is database? Why database (advantages and disadvantages), data independence, Data models: Relational, Network & Hierarchical schema and subschema ?? Data base users
CHAPTER-2	**AN ARCHITECTURE FOR A DATABASE SYSTEM**
	?? The three level architecture, mapping, the database administrator, the database management system, the data communications manager, client/server architecture utilities, distributed processing.
CHAPTER-3	**THE ENTITY /RELATIONSHIP MODEL**
	- Introduction, the overall approach, an overview of the E/R model, E/R diagrams, database design with the E/R model.
CHAPTER-4	**RELATIONAL DATA OBJECTS & RELATIONAL ALGEBRA**
	- Relational System,Relational model optimization - Domains and relations: Domain, relations, and kinds of relations, relations and predicates, relational database. - Various operations of Relational Algebra (Set operation, Cartesian product, join, logic)
CHAPTER-5	**RELATIONAL DATA INTEGRITY**
	- Candidate key and related matters: candidate keys, primary

	keys and alternate keys, foreign keys and rules.
CHAPTER-6	**FUNCTIONAL DEPENDENCIES**
	- Introduction, basic definition, trivial and nontrivial dependencies, closure of a set of dependencies, closure of a set attributes, irreducible set of dependencies. Base tables & views
CHAPTER-7	**NORMALIZATION**
	- 1nf, 2nf, 3nf, BCNF: introduction, non loss decomposition and functional dependencies, first, second and third forms, dependency preservation, boyce/codd normal form.
CHAPTER-8	**ORACLE RDBMS**
	DDL & DML : Data Definition Language (DDL) - Creating, Altering & Dropping tables, Integrity Constant, Data Manipulation Language (DML) - Select Insert, Update, Delete Commands, Transaction Control using SQL - Commit, Rollback, Save point command, Data Controlling using SQL - Grant, Revoke, Set Role, SQL functions
CHAPTER-9	**PL/SQL IN ORACLE**
	PL/SQL : Introduction to PL/SQL Execution environment, Oracle transaction, Cursor, Parameterized, Implementation of concurrency control in oracle using locks, Stored procedure, Function, Package, Overloading procedure and function, Database triggers.

I) SUGGESTED IMPLEMENTATION STRATEGIES

Concepts of DBMS will be implemented by using the Oracle relational DBMS

J) LEARNING RESOURCES SUGGESTED TO BE USED

a) Reference Books

S. NO.	TITLE	Author, Publisher & Address, Edition,Year of Publication
1	An Introduction to Data Base System	C. J Date Addision-wesley Publication, Sixth Year of Publication
2	Introduction to Database Management System	Navin Prakash Tata Mcgraw Hill, Latest
3	Concepts of Database Management	Philip J.Pratt & Joseph J. Adamski, Vikas Publishing House, 3rd Edition
4	Using Oracle 8i	William Page Jr. And Nathen Hughes Abraham silberschaty Practice Hall of India , Latest

S. NO.	TITLE	Author, Publisher & Address, Edition,Year of Publication
5	Database System Concepts	Herry,Korth Tata Mcgraw Hill, Latest
6	An Introduction To Database System	C. J. Date,3rd
7	Database System Concepts	Henry F. Korth
8	Database Management Systems	Leon & Leon, Vikas Publications.
9	An Introduction To Database System	Bipin C. Desai
10	The Oracle Cook Book	Liebschutyz, Bpb Publications
11	Oracle A Beginners Guide	Michael Abbey & Michael J. Corey, Tmh Publications
12	Oracle & Client Server	Bobroski
13	Sql Pl/Sql The Programming Language Of Oracle	Ivan Bayross

Course: Database Management System-II, Lab

K)   LIST OF PRACTICALS/Tutorials:

Study of various Data Models

- Design of E-R Diagram

- Creation tables with integrity constraints

- Creation of tables with primary key, foreign key, normal, unique

- Creating table in a database in oracle

- Inserting records into table

- Updating data records in table

- Deleting records in the table

- Modifying table structure

- Dropping table from database

- Solve problem using query (DML)

- Creation of users & grating the privileges

- About object privileges

- Design & implementation of database for an organization

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A) SEMESTER   : VI

B) SUBJECT TITLE   : COMPUTER NETWORK

C) CODE   : 222612 (22)

D) BRANCH/DISCIPLINE : COMPUTER SCIENCE & ENGINEERING

E) RATIONALE

The objectives of this subject are to make students learn the technology of the computer networks. The focus is on the aspects of wide area networking. This subject will give opportunity to see the demonstration of network devices, cables, connectors etc. The student would also be able to understand the total setup of a wide area network in particular.

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
222612(22)	3	1	-	100	20	20	-	-	140	4

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1.	Network Architecture	8	15
2.	Signals And Communication Technology	16	20
3.	Data Link Layer	14	20
4.	Network Layer	10	15
5.	Transport And Application Layers	16	30
Total		64	100

H)	DETAILED CONTENT
CHAPTER-1	**NETWORK ARCHITECTURE**
	?? Network Definition, Network Architecture, Classification of Networks (architecture and geographical area), ISO-OSI Model, TCP-IP Model and Comparison with OSI model.
CHAPTER-2	**SIGNALS AND COMMUNICATION TECHNOLOGY**
	?? Digital Signal, Analog Signal, Transmission Media, Transmission Mode.
	?? Multiplexing (FDM, TDM, STDM),
	?? Switching Technique – Circuit, Packet and Message, PSTN
	?? Communication Technology - Point to Point Protocol & Broadcasting
	?? Physical Layer devices and interface - Repeater, Hubs, RS-232-C, Null
	?? Modem, NIC,ISDN
	?? Other Technologies – Introduction to GSM, CDMA, Bluetooth, Infrared, Wi-fi
CHAPTER-3	DATA LINK LAYER
	?? Data Link Layer- Basic functions and its protocol
	?? Framing Techniques, Error detection & Correction.
	?? Sliding Window Protocol, SDLC & HLDC
	?? IEEE Standards, Study of IEEE802.3, IEEE802.4, IEEE802.5,
	?? CSMA, CSMA/CD
CHAPTER-4	**NETWORK LAYER**
	?? Network Layers – Basic functions and protocol, Subnet, Routers, Routing Algorithms, Shortest Path routing, IP, IP Addressing.
	?? ARP,RARP
CHAPTER-5	**TRANSPORT AND APPLICATION LAYERS**
	?? Transport layer - User Datagram Protocol(UDP) - Transmission Control Protocol(TCP) - Virtual Circuits - Flooding, Congestion control Protocol - Gateways

I)   SUGGESTED IMPLEMENTATION STRATEGIES

The subject teachers are expected to demonstrate the working of network to the students. They should also take them on visit to telephone exchanges and ISPs to demonstrate multiplexing, switching techniques, ATM, ISDN network setup and communication devices used. The teacher should also demonstrate the students the use and working of http, gopher, DNS, SMTP etc.

J)   LEARNING RESOURCES SUGGESTED TO BE USED

a) Reference Books

S. NO.	TITLE	Author, Publisher & Address, Edition,Year of Publication
1	Data communication and networking	Behrouz,Forouzan, Tata Mcgraw Hills N Delhi
2	Computer Network	Andrew & Tanenbaum
3	Networking Essential – Training Guide	Joe Casad & Dan Newland, (MCSE, MCT) Tech Media New Delhi
4	Networking Essential – Study Guide	James Chellis, et al Techmedia Publication New Delhi

K)   LIST OF TUTORIALS:

?? Working with http, gopher, smtp on windows NT

?? Students should be given exposure to the emerging technology, the concept of multiplexing, switching techniques and ISDN set-up by arranging visits to the Telephone exchanges and ISPs.

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A)   **SEMESTER**   :   **VI**

B)   **SUBJEC TITLE**   :   **DYNAMIC WEB PAGE DESIGN**

C)   **CODE**   :   233611 (33)

   D)   **BRANCH/DISCIPLINE**   :   **Computer Science and Engineering**

E)   **RATIONALE**   :

The aim of this subject is to make the students understand the basic concepts of client server architecture. The students will also develop competence to use structured query language to design and develop client server based application program

F)   **TEACHING AND EXAMINATION SCHEME**

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
				Theory			Practical		Total Marks	
	L	**T**	**P**	**ESE**	**CT**	**TA**	**ESE**	**TA**		
233611(33)	4	1	-	100	20	20	-	-	140	5
233621(33)	-	-	4	-	-	-	50	20	70	2

L : Lecture hours ; T : Tutorial hours; P : Practical hours
ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G)   **DISTRIBUTION OF MARKS AND HOURS**

Chapter No.	Chapter Name	Hours	Marks
1	Introduction to server side programming	6	8
2	Introduction to active server pages	6	8
3	Introduction to JAVA script	10	12
4	Introduction to VB script	10	12
5	VB script control structure	6	8
6	VB script functions and subroutines	6	8
7	ASP objects	10	12
8	Communicating with users	8	8
9	ASP components	6	8
10	Reading and writing of files	6	8

Chapter No.	Chapter Name	Hours	Marks
11	Reading from a data base and writing to database	6	8
	TOTAL	80	100

H)	DETAILED CONTENT
CHAPTER - 1	**INTRODUCTION TO SERVER SIDE PROGRAMMING**
	?? Introduction to server pages
	?? Understanding client server model
	?? Difference between client side scripting and server side scripting
	?? Concept of personal web server, Internet information server (IIS).
CHAPTER – 2	**INTRODUCTION TO ACTIVE SERVER PAGES**
	?? Understanding active server pages & scripts
	?? Creating ASP pages
	?? ASP comment lines.
	?? RESPONSE write object
	?? The ASP process
CHAPTER – 3	**INTRODUCTION TO JAVA SCRIPT**
	?? Java script Overview, Java script and the WWW, Java script vs. VBScript, Java script vs. Java, Java script versions, Script element,
	?? Inline Java script, Including Java script.
	?? Functions : Functions introduction, Calling functions,
	?? Java script Comments : Comments overview, When to comment, Types of comments
	?? Variables : Variables overview, Declaring variables, Types of variables, Casting variables, Alert box
	?? Expressions : Arithmatic operators, Assignment operators, Logical operators, Expressions and precedence
	?? Statements : If statement, For statement, While statement
	?? Break/Continue
CHAPTER – 4	**INTRODUCTION TO VBSCRIPT**
	?? Character set
	?? Data types
	- Integer - Floating point numbers - Strings - Date - Boolean - Currency
	?? Declaration of variables
	?? Use of option explicit
	?? Constants
	?? VB script operators
	- Arithmetic
	- Logical
	- Array processing - Relation - String

CHAPTER – 5	VB SCRIPT CONTROL STRUCTURES
	?? Conditional statements

	- if then statement
	   - if then else statement
	   - Nested if statement
	   - Select case statement

	?? Looping statements

	- Do loop statement
	     ✍ Do while – Do
	     ✍ Do until

	- while – whend statements
	   - For – next statement
	   - For each – next statement
	   - Nesting loops

CHAPTER – 6	VB SCRIPT FUNCTIONS AND SUBROUTINES
	?? Writing subroutines using Sub - End Sub ?? Argument passing to a subroutine ?? Writing functions ?? Calling functions ?? VB Script Built-in functions

	- Type casting functions
	   - Formatting functions
	   - Math functions
	   - Date functions
	   - String functions

CHAPTER – 7	ASP OBJECT
	?? Concept of objects

	- Definition
	   - Properties
	   - Methods
	   - Instances of objects

	?? Built in ASP objects and their definitions

	- Response objects
	   - Request object
	   - Application object
	   - Session object
	   - Server object
	   - Context object
	   - ASP error object

	?? Using Response objects
	- Sending HTML to the browser - Response write
	- Buffering ASP - Response buffer
	- Response clear - Response flush

	- Response end - Sending the user to another page - Response redirect - Caching ASP - Response expires

CHAPTER-8	COMMUNICATING WITH USER
	?? Concept of forms
	?? Creating forms
	- Using forms fields - Designing forms - Submitting forms - Reading form values from an ASP - Client side form validation ??
	?? Collecting the form information
	- Using Request object - Reorienting values from Text Box, list Box, check Box, Radio Button.
	?? Cookies
	- Reading cookies using request object - Writing cookies using response object - Advantages and disadvantages of cookies
CHAPTER – 9	ASP COMPONENTS
	?? Using Component in ASP
	?? Using the Ad rotator
	?? Content linker and its users
	Browser capabilities component
CHAPTER – 10	READING AND WRITING OF FILES
	?? Accessing files and folders using server object.
	?? Opening files
	?? Reading files
	?? Writing files to the server
	?? Appending files
CHAPTER – 11	READING FROM A DATABASE AND WRITING TO DATABASE
	?? Introduction to databases, ODBC, activeX Data objects (Application Data Object) ADO
	?? Connecting to database using connection object
	?? Reading the data from database - Using record set object
	?? Displaying the contents of database
	?? Inserting records
	?? Using ADD Address and update
	?? Updating records
	?? Deleting records

I)   **SUGGESTED IMPENTATION STRATEGIES**

To implement this subject it is assumed that student is not having knowledge of server side programming. It is also assumed that the student is well aware of web page designing & client side programming. While implementing this one should clearly understand client server technology. For effective teaching/learning it is expected that related assignments / programs should be given based on the topics. During the practical sessions one should try to implement the concepts learned in theory.

J)   **LEARNING RESOURCES SUGGESTED TO BE USED**
a)   **Reference Books**

S.No.	Title	Edition Year of Publication Author Publisher & Address
1.	Teach yourself ASP in 21 days	Techmedia, Latest Edn.
2.	Teach yourself VB script in 21 days	Techmedia, Latest Edn.
3	Active server pages	Morneau,Keith,Vikas publication, Latest Edn.
4	ASP internals	Flanders, Pearson education India, Latest Edn.
5	ASP 3.0 instant reference	Petroutsos,BPB publication, Latest Edn.

Course: Dynamic web page design, Lab

K)   LIST OF PRACTICALS/ ASSIGNMENT:
Practical

??   Assignment based on client server model.

??   Assignment based on terminology related to dynamic web pages

??   Assignments to write character, data types, operators & symbols of WB scripts.

??   A simple program on dim statement and arithmetic calculation.

??   A program based on each
-   if
-   Select case
-   Do loop
-   While
-   For next

??   A program based on each
-   Subroutines
-   Argument passing to sub routine
-   Built-in function

??   A program to make use of response buffer, response. Clear, response flesh response expires.

??   Designing a form and submit

??   Information collection using request object

??   Reading and writing cookies.

??   Browser name and version

??   File handling

??   Read data from database & process it

??   Update the database

??   Deleting the data

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A) **SEMESTER** : VI
B) **COURSE** : INFORMATION SERVICES
C) **CODE** : 233614 (33)
    D) **BRANCH/DISCIPLINE** : Computer Science and Engineering
E) **RATIONALE:**

The subject 'Information Services' is designed to make the student familiar with different aspect of establishing and managing computer based information services. The student will understand the project management, network management, security aspects and maintenance of computer system and peripherals.

F) **TEACHING AND EXAMINATION SCHEME**

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination					Total Marks	Credit L+(T+P)/2
				Theory			Practical			
	L	T	P	ESE	CT	TA	ESE	TA		
233614(33)	3	2	-	100	20	20	-	-	140	4

L : Lecture hours ; T : Tutorial hours; P : Practical hours
ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G) **DISTRIBUTION OF MARKS AND HOURS**

Chapter No.	Chapter Name	Hours	Marks
1.	Information Service Trends and Issues	10	14
2.	Establishing Information Service Centre	15	18
3.	Electrical Equipments Requirements	12	16
4.	Procurement Process: Hardware & Software	12	14
5.	Project Management	12	14
6.	Security Aspects	9	12
7.	Maintenance	10	12
	Total	**80**	**100**

H) DETAILED CONTENT

CHAPTER-1   INFORMATION SERVICE TRENDS AND ISSUES

- ?? Present and future Information Technology Industry Scenario: Problems and Trends, Solution through Information Service (IS) Department/Centre
- ?? Organization and Administration of an IS center: Common Manpower levels and their Roles
- ?? Functions of Computerized IS: System Development, System Maintenance, Production, Administration, Technical Support.
- ?? Cost Vs Benefits: Equipment Costs, Installation Costs, Development Costs, Personal Costs, Operating Costs Vs Benefits

CHAPTER-2   ESTABLISHING INFORMATION SERVICE CENTRE

- ?? Computer Software Acquisition:- System and Application Software requirement, Evaluation Criteria- Cost, Service and support, Documentation, Flexibility, Stability, Machine and O.S dependency, Completeness; Tailor made package evaluation Criteria- System Adaptability, Training, Portability, Performance and Capacity, support, File Maintenance, Controls, Data Integrity and Backup
- ?? Computer Hardware Acquisition- Identification, Guidelines & Specification of computer systems (Server/workstations), Peripherals: printer, scanner, plotter etc.; Network Equipments: Switches, Hubs, network cable and connectors etc.

CHAPTER-3   ELECTRICAL EQUIPMENTS REQUIREMENTS

- ?? Physical Layout and structure considerations- computer layout-Architecture(space), false ceiling, false flooring, computer furniture's , Room Layout, Air Conditioning, Dust - free, Cleanliness, Sitting arrangements, Access, Security, Fire safety and protection, Environment Factors.
- ?? Electrical Equipment and fittings considerations: Power and Lighting, Electrical Fittings, System load, Specifications of window air conditioner/split-AC, fire-extinguishers, tool kit, servo stabilizer, Specifications of isolations Transformer, UPS, CVT, CVR, Safety Considerations.

CHAPTER–4   PROCUREMENT PROCESS: HARDWARE & SOFTWARE

- ?? Need Identification, Alternative Selection, H/w & S/w requirement Study and Configuration, Request for Quotations, Evaluation of Quotations, Selection and Ordering, Delivery, Installation & Benchmarking.
- ?? Acceptance and Taking Over, Post Installation, Basis for Evaluation Checklist.

CHAPTER-5   PROJECT MANAGEMENT
   ??   Need for Planning
      -   Uncertainty in data processing plans
      -   Long –term plans
   ??   Project Planning
      -   Project Phases, Estimating, Resource Scheduling

   ??   Planning Control Aids
      -   Critical Path Method, Gantt charts, Networks, Network Analysis,
          Planning from the network, Network Packages
   ??   Project control
      -   Measuring Progress, Recording Progress, Deviation from plans,
          Performance Statistics

CHAPTER-6   SECURITY ASPECTS
   ??   Physical Security- Security factors, fire, flooding, earthquake, theft
          and sabotage, electrical failure
   ??   Data Security-Accidental disclosure, deliberate infiltration, control
          of illegal access, control measure/techniques for security-authorization
   ??   System Security-Log Book Maintaining, Viruses, backups

CHAPTER –7   MAINTENANCE
   ??   Maintenance
      -   Introduction: Factors for negotiating the hardware maintenance
          contract- terms, service and response, vendor support etc.
      -   Different types of maintenance
          -          Preventive maintenance
          -          Remedial Maintenance
      -   Intermittent faults
      -   Customer provided information and its synthesis
   ??   Network Management
      -   Intranet and Internet Management

I)   **SUGGESTED IMPLEMENTATION STRATEGIES**
   The teachers should insist student to develop a proposal to establish a computer center.
   Various demonstrations will also help students to understand the use of Information
   Services

J)   SUGGESTED LEARNING RESOURCES
a)Reference Books

S. No.	Title	Author, Publisher & Address, Edition,Year of Publication,
1.	Computer Management & Planning	Latest, Utpal Banerjee, TMH Publications
2.	Management of Information Services	1st, 2000, Chitra Sivakumar & K.S. Babai Tata McGraw- Hill
3.	Introducing system Analysis & Design	Latest, Galgotia Booksource, New Delhi

K)   LIST OF TUTORIALS/ DEMONSTRATIONS

?? Study of institution functioning
?? Prepare a proposal to establish a computer centre

CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

A)   **SEMESTER**   **:**   **VI**

B)   **SUBJEC TITLE**   **:**   **Major Project**

C)   **CODE**   **:**   **222622 (22)**

    D)   **BRANCH/DISCIPLINE**   **:**   **Computer Science and Engineering**

E)   **RATIONALE**   **:**

The major project will enable the students to integrate the knowledge and software development skills acquired during his diploma programme. He would be able to design and develop an identified software system independently in particular using the software in Sixth Semester.

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination					Total Marks	Credit L+(T+P)/2
				Theory			Practical			
	L	**T**	**P**	**ESE**	**CT**	**TA**	**ESE**	**TA**		
222622(22)	-	-	5	-	-	-	100	70	170	3

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G) PROJECT DEVELOPMENT APPROACH
a. Project Selection

1. Project must be based on the knowledge acquired by the students. Students must be aware of the languages, packages and hardware that he is using for his project.
2. Repetition of projects may be avoided as far as possible.
3. The students should be given some time for project selection. At the end of it, the student must submit a 3 to 4 page document-giving outline of project and feasibility study report.
4. Feasibility study includes:
5. Time feasibility.
6. Software, Hardware availability.
7. Information source etc.
8. The students has to independently carry out the project.
9. Project may be an application software development

b. Project Design

In this phase the students will actually start analyzing the system and collect data/information for their project. The student should.

1   The student should analyse and design the system.
2   The student must adopt standard norms and procedures.
3   Design must be modular & there must be clear.
4   The student must submit "Synopsis" giving details about system analysis and design aspects. He should individually contact the concern teacher to clear his views about the project.

c. Project Development

Remaining time may be utilized for actual coding, testing, of project.

1   Independent module development is necessary.
2   The project guide must continuously assess their project during its development.
3   Taking into consideration shortcoming & suggestions given during testing, the final software should be developed and submitted by the end of the term.

d. Project Report

The following section should be considered while writing the project:

1   Project Title
2   Feasibility study
3   Analysis
4   Design Aspect
5   Developmental Aspect (including source code)
6   Books/Manual/Documentation

e. Project Valuation

1	Innovative idea	10%
2	Project Design	25%
3	Working Model	40%
4	Oral	15%
5	Presentation	10%
	Total	**100%**

H) IMPLEMENTATION

The teachers are expected to motivate the students to take innovative projects either from the polytechnic system or from the industry. Teachers should evaluate the project as per the guidelines given above.