PROGRAMME GUIDE

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION
(PGDCA)

***Scheme of Examination (CBCS/ELECTIVE)**
***Detailed Structure of Syllabus**

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POST GRADUATE DIPLOMA IN COMPUTER APPLICATION

Duration: 12 Months (1 Year)

Eligibility: Graduation

COURSE STRUCTURE OF PGDCA SEMESTER I st												
Subject Details			Main Examinations				Sessionals ***		Credit Distribution			Allotted Credits
Subject Code	Subject Name	Total Marks	Major		Minor		Max Marks	Min Marks	L	T	P	Subject wise Distribution
			Max Marks	Min Marks	Max Marks	Min Marks						
Theory Group												
4TPDC-101	Fundamentals of Computers & Information Technology	100	50	17	20	07	30	12	3	2	-	5
4TPDC-102	Windows & MS Office	100	50	17	20	07	30	12	3	2	-	5
4TPDC-103	DBMS With MS Access	100	50	17	20	07	30	12	3	2	-	5
4TPDC-104	Computer Network & Internet	100	50	17	20	07	30	12	3	2	-	5
4TPDC-105	Communication Skills & Personality Development	100	50	17	20	07	30	12	3	2	-	5
Practical Group			Term End Practical Exam				Lab Performance					
4TPDC-102	Windows & MS Office	50	25		08		25	08	-	-	1	1
4TPDC-103	DBMS With MS Access	50	25		08		25	08	-	-	1	1
Grand Total		600										27

Minimum Passing Marks are equivalent toGradeD

L- Lectures T- Tutorials P- Practical

Major- Term End Theory Exam/ Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION

Duration: 12 Months (1 Year)

Eligibility: Graduation

COURSE STRUCTURE OF PGDCA II SEMESTER												
Subject Details			Main Examinations				Sessional***		Credit Distribution			Allotted Credits
Subject Code	Subject Name	Total Marks	Major		Minor		Max Marks	Min Marks	L	T	P	Subject wise Distribution
			Max Marks	Min Marks	Max Marks	Min Marks						
Theory Group												
4TPDC-201	Objects Oriented Programming With C++	100	50	17	20	07	30	12	3	2	-	5
4TPDC-202	RDBMS and SQL	100	50	17	20	07	30	12	3	2	-	5
4TPDC 205	Programming with VB.Net	100	50	17	20	07	30	12	3	2	-	5
Elective-I												
4TPDC-203	Computerized Accounting With Tally	100	50	17	20	07	30	12	3	2	-	5
4TPDC-204	Introduction To Internet & Web Technology											
Practical Group			Term End Practical Exam				Lab Performance					
4TPDC-201	Objects Oriented Programming With C++	50	25		08		25	08	-	-	1	1
4TPDC-202	Dbms & SQL (With Ms Access / Ms SQL Server/ Oracle)	50	25		08		25	08	-	-	1	1
4TPDC-205	Programming with VB.Net	50	25		08		25	08	-	-	1	1
4TPDC 206	Project Report	100	50		17		50	17	-	-	2	2
Elective-I												
4TPDC-203	Computerised Accounting With Tally	50	25		8		25	8	-	-	1	1
4TPDC-204	Introduction To Internet & Web Technology											
Grand Total		700										26

Minimum Passing Marks are equivalent toGradeD **L- Lectures T- Tutorials P- Practical**

Major- Term End Theory Exam/ Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

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KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 1st **Subject Code: 4TPDC-101**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: FUNDAMENTALS OF COMPUTERS & INFORMATION TECHNOLOGY **Theory Min. Marks 17**

COURSE OBJECTIVE: Student will be able

1. To understand the basic knowledge of computer
2 To understand the assembly-level programming
3 To understand the input output devices, storage media, memory.
4 To understand the concept of Networking devices.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	**Know the Computer** -Introduction, What does computer stands for? Strengths of computers, Limitations of computers, Fundamental uses of computers, Development of computers, Types of Computers, Generations of Computers Personal Computer -Introduction, Personal computer, Uses of personal computers, Components of personal computers, Evolution of PCs, Developments of processors, Architecture of Pentium IV, Configuration of PC **Number System** -Introduction, Digital and Analog Operations, Binary Data, Binary Number System, Decimal Number System, Octal Number System, Hexadecimal Number System, Fractional Conversion, Coding System **Data Representation and Binary Arithmetic** -Introduction, Bits, Nibbles, Bytes and Words, Data Representation, Coding system, Binary Arithmetic, Binary Addition, Binary Subtraction, Binary Multiplication, Binary Division, Character Representation, Checking the Result of Binary Arithmetic.	ICT based class room teaching, Group Discussion, Case Analysis, Individual Presentations
Unit – II	**Input Devices** -Introduction, Input Device, Typing Input Devices, Pointing Input Devices, Scanning Input Devices, Audio Visual Input Devices **Output Devices** - Introduction, Output Devices, Soft Copy Vs Hard Copy Output, Monitor, Printers, Plotter, Electrostatic Technique, Special Purpose Output Equipments **Central Processing Unit** - Introduction, What is Central Processing Unit, Arithmetic and Logic Unit, Control Unit, Registers, Instruction set, Processor Speed **Storage Devices** - Introduction, Storage and its needs, Brain Vs Memory, Storage Evaluation Units, Data Access Methods, Primary Storage, Secondary Storage, Hard Disk Operations, Floppy Disk Drives, Winchester Disk, Optical Disk, VCD, CD-R, CD-RW, DVD, Zip Drive, Flash Drives, Blue Ray Disk, Memory Card, Driving Naming Conventions In a PC **Basics of Software**- Introduction, What Does Software Stand For? Needs of software, Types of software, Open Source Software, Integrated Development Environment **Operating System** - Introduction, Operating System, Why an Operating System, Functions of Operating System, The Booting Process, Types of Reboot, Booting From Different Operating System, Types of Operating System, Some Prominent Operating Systems **Disk Operating System** - Introduction, What is DOS?, Functions of DOS, Versions of DOS, DOS Commands , Important Internal Commands of DOS, Important External Commands of dos, Executable Vs Non-Executable Files In Dos	ICT based class room teaching, Case Analysis, Individual Presentation, Visit to Venture Capitalists

Unit – III	**Programming Languages** - Introduction, Data, information And Knowledge, Characteristics of Information,Comparison between human language and , Computer Language, What is a program?, What is a Programminglanguage?, Programming development cycle, Algorithm, Program Flowcharts, Pseudo code, Programmingapproaches, Programming Paradigms, Types of Programming Language, Third Generation Language, FourthGeneration Language **Computer Virus** - Introduction, Virus, History, Mechanism of virus, How A Virus Spreads , How is virus named, A few Prominent Viruses, Types of Computer Virus, Related Concepts :, Anti Virus Programs, Norton Anti - Virus (NAV), Execution of Norton Anti-Virus **Communication and IT** - Introduction, Computer Network, Communication Process, Communication Types,Transmission Media, Wireless Media, Communication Channels/Media, Modem, Characteristics of a Modem, Types of Modem	ICT based class room teaching, Case Analysis, Individual Presentation
Unit – IV	**Networks** - Introduction, Internet Vs Intranet, Types of Network, Topology, Types of Connectivity, Network Devices **Internet** - Introduction, What is Internet actually ?, Growth of Internet, Owner of the Internet, Internet Service Provider, Anatomy of Internet, ARPANET and Internet history of the World Wide Web, Services Available on Internet (Internet Tools), Basic internet terminologies, net etiquette, Application of internet	ICT based class room teaching, Case Analysis, Individual Presentation
Unit - V	Applications of Computers and Information Technology - Introduction, Business And Computer, E-Mail, ECommerce, Project management, Computers in Personnel Administration, Accounting, Computers in Cost and Budget Control, Marketing, Manufacturing, Materials management, Banking, Insurance And Stock broking,Purchasing, Computers in warehousing	ICT based class room teaching, Case Analysis, Individual Presentation

COURSE OUTCOMES:-

After study this student will be able to know about terms and concepts of Fundamentals ofComputers & Information Technology (hardware, software, networking, security,Internet/Web, and applications).

Text Books:

• Introduction to Computers and Information Technology Anurag Seetha (Ram Prasad & Sons, Bhopal.)
• Fundamentals of Information technology, Alexis Leon & Mathews Leon (Vikas Publishing House, NewDelhi.)
• Computer System Architectur MORRIS MANO (PHI Publication)
• Computer fundamental , V .Rajaraman; (PHI Publication)
• Basics of Computer & Information Technolog, Naik Nitin K. , (Kamal Prakashan)

Reference Books:

1. Anurag Seetha, "Introduction to Computers and Information Technology", Ram Prasad & Sons, Bhopal.
2. Galgotia Publications, "Computers Today ", Galgotia Publications.
3. Alexis Leon & Mathews Leon, "Fundamentals of Information technology ", Vikas Publishing House, NewDelhi.
4. Rajeev Mathur, " DOS Quick reference", Galgotia Publications
5. MORRIS MANO, "Computer System Architecture" PHI Publication
6. Computer fundamental: by V .Rajaraman; PHI

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Computer Operator, Office Assistant, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization,Consultant in Software firms,Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Learn basic's of Computer, Computations, Network, Internet and Programming Languages, Time, Management, Speaking, Cooperating, Presenting	No Poverty, Quality Education, Industry Innovation and Infrastructure.	Can start own Computer Assistance services.

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SEMESTER- 1st **Subject Code: : 4TPDC-102**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: WINDOWS & MS OFFICE **Theory Min. Marks17**

COURSE OBJECTIVE:

Student will be able
1. To understand the basic knowledge of MS Windows.
2. To understand the Office Packages.
3. To understand the MS Excel.
4. To understand the MS PowerPoint & Outlook Express.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Introduction to Windows XP- Introduction, What is Windows XP ?, Evolution of Windows Operating System, Features of Windows XP, What's New in Windows XP, Windows and Its Elements. Accessories And Other Tools - Introduction, The Calculator, The Character Map, The Paint, The Notepad, The WordPad, The NetMeeting, The Internet Explorer, The Windows Media Player, The MS-DOS , The Control Panel , The Windows Picture and Fax Viewer. Managing Files and Folders -Introduction, Viewing files and folders, Arranging files and folders, Creating a new folder, Creating a file using short-cut. Customizing Your Computer - Introduction, customizing Your Desktop, Changing the Start menu style, Setting a screen saver, Reversing your mouse buttons, Changing the appearance of your mouse pointer, Adding a new font to your computer, Logging off from the computer, Adding or Removing Programs.	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – II	Word Processing and MS-Word - Introduction, Features of Word Processor, Starting MS-Word, Chief Elements Of MS-Word Window, Displaying and Hiding the Toolbar, File operations in MS-WORD, Using Help Online, Customizing Office Assistant. Text Formatting - Introduction, Typing the text, Selecting Text with a mouse, Deleting Text, Restoring the deleted text, Typing over the existing text, Undoing/Cancelling the last action, Redoing/Repeating the last action, Formatting font, Advanced text formatting, Customizing Spelling Check, Using the thesaurus. Document Formatting- Introduction , Using page border, Bullets and numbering, Setting and removing tab stops, Making word count, Using Auto text, Using autocorrect, Headers and Footers, Setting up columns in the document, Removing columns from the document, Inserting page numbering, Formatting the page numbering, manual and automatic page breaks, Setting margins, Inserting date and time.	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – III	Tables And Graphics - Introduction, creating tables, calculating numeric data in a table , Deleting columns and rows, Formatting a table, Aligning text in the table, Formatting text in the table, Applying borders and shadings, Add a border to a table, Automatically format a table , Using Drawing, Creating a Shape, Using Word Art, Using Autoshapes, Insert a clip from the Clip Organizer, Inserting a text box, What is Drawing Canvas?, Using autoshapes. Mail Merge, Views, Template and Wizard- Introduction, Mail merge , Views, Overview of templates, Creating a document template, Create a Web page based on a template, Modify a document template, RULER, ZOOM.	Usage of ICT :-Power Points, PDF, Video lectures, Black board,

Unit – IV	Spreadsheet and MS-Excel- Introduction , Starting MS-Excel , Spreadsheet and its Elements , Application Window , Document Window, Cell , Standard Toolbar, Formatting Toolbar, Workbook , Worksheet, Handling Files. Worksheet Formatting - Introduction, Entering Text Data, Entering Formula , Editing the Cell Content, Formatting the Cell , Formatting Font, Setting Border Around Cell, Highlighting gridlines, Using Format Painter, Finding and Replacing the Text, Using Spelling and Grammar. Function and Operator -Introduction, Entering Functions , Editing Functions, Using Mathematical Functions, Using Statistical Functions, Using Date & Time Functions, Changing the default date format , Text Function, Logical Functions, Financial Function, Operators, AutoSum, Function Wizard.	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit - V	MS-PowerPoint -Introduction, Chief Elements of Presentation, Starting Powerpoint, Creating A Presentation, Creating A Presentation with Auto Content Wizard, Create a presentation using a design template, Creating a blank presentation, Powerpoint window and its Elements, Using Help Online, Customizing Office Assistant . Text Formatting in Slides- Introduction , Adding text to slides, Editing text on a slide, Using Format Painter, Setting Paragraph Indents, Line Spacing in a Paragraph, Setting and Removing Tab Stops , Checking Spelling of the text , Finding and replacing the text, Moving slides. Table, Chart and other Drawing Objects- Introduction, Creating a table, Adding Columns and Rows, Deleting Columns and Rows, Changing Table Borders, Using Autoshapes, Chart, Inserting a clip to your slide, Using Word Art, Working With Drawing Toolbar, Creating A Shape. Slides, Views, Notes, Handouts -Introduction, PowerPoint Views, Notes Pages, Inserting Header and Footer in the, Slide , Custom Show, Assigning Custom Animation , Adding a motion path, Animating a chart, Showing Slides, Printing Slides .	Usage of ICT :-Power Points, PDF, Video lectures, Black board,

COURSE OUTCOMES: –

After studying this student will be able to know about terms and concepts of Microsoft suite completely. (like MS-Word, Power-Point-Excel Sheets, Excel Chart)

Practical:

1. Introduction of Microsoft windows.
2. Creation of file and folder in MS Windows.
3. Introduction of MS Word.
4. Inserting Number, Bullets, Footer and Header.
5. Creating text, document and table in MS Word.
6. Write steps for mail merge.
7. Introduction of Microsoft excel.
8. Write steps to inserting formula in MS Excel.
9. Creating text, row and Column in MS Excel.
10 Introduction of Microsoft Power Point.
11. Write steps how to using graphics in power point.
12. Introduction and theory of Microsoft Outlook.

Text Books:

• MS-Office 2010 Mr. Kalpesh Patel (Computer World (2014))
• PC Software MS Office Naik Nitin K (Kamal Prakashan)

Reference Books:

• Introducing Windows 10 for IT Professionals Ed Bott (Microsoft Press)
• GO! with Microsoft Windows 10 Introductory Gaskin & Vargas (Publisher: Pearson)
• Microsoft Office 2010 a Complete Guide Blokdyk Gerardus (5starcooks
• Windows 7 Complete Reference. BPB Publications
• MS Office 7 complete BPB publication
• MS Windows 7 Home edition complete, BPB Publications
• Microsoft Word, Excel, and PowerPoint: Just for Beginners by Dorothy House

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Computer Operator, Office Assistant, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization,Consultant in Software firms,Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Learn basic's of MS-office package software and improve their skills on writing and presenting	No Poverty, Quality Education, Industry Innovation and Infrastructure.	Can start own Computer Assistance services.

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SEMESTER- 1st **Subject Code: : 4TPDC-103**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: DBMS WITH MS ACCESS **Theory Min. Marks17**

COURSE OBJECTIVE:

Student will be able
1. To understand the concept of Data Base Management.
2. To understand the knowledge of Data base design.
3. To develop the skills in MS Acess programming.
4. To understand the concept of Multi data files.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Introduction to Database, What is Database, why use a relational database, overview of database design, Data normalization (Deteremining tables, Determining fields, Determining relationships),Integrity rules (primary key/foreign key, one-to-many, many-to-many, one-to-one) Integrity rules many-to-many, one-to-one),Introduction to MS-access (objects, navigation)	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – II	Tables in database, create a table in MS-access- Data types, field properties, fields: names, types , properties-default values, format, caption validation rules, data entry add records, delete records and edit text sort, find/replace, filter/select, rearrange and freeze columns ,Edit a tables-copy, delete, import, modify table structure, find, replace	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – III	working with query, setting up relationship-define relationships, add a relationships, set a rule for referential integrity, change the join type, delete a relationships, save relationships, query and filter-difference between query and filter, filter using multiple fileds AND, OR and advance filter queries, create query with one table, find record with select query, find duplicate record with query, find unmatched record with query, run query, save and change query	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – IV	working with forms, introduction to basic form types, Basic forms: tabular, columner, datasheet/main subforms, add headers and footers, add fileds to forms, add text to forms, use label option and buttons, checkbox, combobox list box, form wizards, create templates	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit - V	working with reports, Introduction to reports, types of reports: single column, tabular, Reports groups/total, single table reports, multi table reports, preview report, print report, createing reports and labels, wizards	Usage of ICT :-Power Points, PDF, Video lectures, Black board,

COURSE OUTCOME:-

After study this student will be able to know about the core database administration tasks and tools. Restore databases from backups, Import and export data. Monitor SQL Server.

Remark: Programming Methodology & Programming in FoxPro changes to DBMS With MS Access,because fox pro is out dated language.

Practicals:

1. Write a query to implement Different types of DDL statements in SQL.
2. Write a query to implement Different types of DML statements in SQL.
3. Write a query to implement Different types of DQL statements in SQL.
4. Write a query to implement Different types of DCL statements in SQL.

5. Write a query to explore ‘select’ clause using where, order by, between, like, group-by, having etc.
6. Write a query to implement the concept of Joins in SQL.
7. Write a query to implement the concept of Indexes and views.
8. Write a query to implement the restrictions on the table.
9. Write a query to implement the concept of SubQuestionries.
10. Write a query to implement the structure of the table.

Text Books:

• Database Management System (H), Laad Ameet, (Kamal Prakashan)
• Introduction to Database Management Systems , Kahate Atul (Pearson)
• An introduction to database system, Bipin C.Desai (New Delhi Galgotia)

Reference Books:

• Database Management System Leon & Leon (Vikas Publications)
• Database System Concepts Henry F.Korth & Abraham Silberschatz. (New york. MCGraw)
• An Introduction To Database System C.J.Date (New Delhi Pearson)

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Data administrator, database developer, database trainer, oracle engineer, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization,Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Query processing, Database handling, Organizing and Planning Database, Handling data and query processing.	No poverty, Quality Education, Decent Work and Economic Growth, industry innovation and infrastructure	Can start own Data handling company.

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SEMESTER- 1st **Subject Code: : 4TPDC-104**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: COMPUTER NETWORK & INTERNET **Theory Min. Marks 17**

COURSE OBJECTIVE:

Student will be able
1. To understand the fundamental concepts of computer networking.
2. To understand the basic taxonomy and terminology of the computer networking area.
3. To understand the advanced networking concepts, preparing the student for entry Advanced courses in computer networking.
4. To understand the various transition method.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	INTRODUCTION TO COMPUTER NETWORK, Network, Computer Networks, Need of Network , Uses of Computer Network, Applications of networks, Network Criteria, Network Hardware and Software, network types : client, server & peers, Classification of Computer Network, Server, ATM (Asynchronous Transfer Mode), Modem The theoretical network model- OSI, OSI Model, open system interconnection model (OSI), Layered Architecture of the OSI Reference Model, Functions of the ISO/OSI Layers, Summary of OSI Layer functions.	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – II	TRANSMISSION TECHNOLOGY, transmission technology, Data can be analog or digital, Analog and Digital Transmission, asynchronous & synchronous transmission, Types of Communication Modes, Base Band and Broadband Transmission, Comparison of Baseband and Broadband Signaling, Network topology, Network Topology, Types of Network, Local Area Network (LAN), Metropolitan Area Networks (MAN), Wide Area Networks (WAN), Satellite Networks, Wireless LAN	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Workshop on Computer Networks, Group discussions on Internet Pros and Cons. Individual presentations on Network Devices
Unit – III	TRANSMISSION MEDIA-Transmission Media, Classification of Transmission Media, Comparison of Guided and Unguided Media, Twisted Pair (TP) Cable, Coaxial Cable, Fiber Optic Cable (FOC), Unguided Media, Radio Frequency Characteristics, Microwave Transmission, Applications of Infrared Transmission, Switching Methods, Packet switching, Circuit Switching, Message Switching, data link layer, Data Link Layer Design issues, Sliding Window Protocols	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – IV	NETWORK ADAPTERS-Multiple Access Protocol, ALOHA, Carrier Sense Multiple Access (CSMA), CSMA/CD ,Carrier Sense Multiple Access/Collision Detection, Collision Free Protocols, Limited Contention Protocol network layer, Functions of Network Layer, Routing Algorithms, Congestion Control Algorithm application layer, Domain Name System, Simple Mail Transfer Protocol (SMTP), Hyper Text Transfer Protocol (HTTP), File Transfer Protocol	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit - V	CRYPTOGRAPHY, Encryption & Decryption - Cryptography, Terminology, Classification of Cryptography :,Substitution Ciphers, Security of algorithms, Steganography, Steganography vs Cryptography, public key encryption , Comparison of Symmetric and Asymmetric Key Cryptography , Public Key Cryptanalysis, Digital Signature , Requirements of Digital Signature, Direct Digital Signature, Arbitrated Digital Signature, Authentication Protocols, Symmetric Encryption Approach, Public-Key Encryption Approach, Digital Signature Standard, RSA and Digital Signature, DSS Approach, The Digital Signature Algorithm.	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Quiz competition on aptitude question on C++., Project making competition using HTML

COURSE OUTCOMES:-

After study this student will be able to know about
1. Independently understand basic computer network technology.
2. Understand and explain Data Communications System and its components.
3. Identify the different types of network topologies and protocols.
4. Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer.

Text Books:-

• Networking Essentials: Study Guide MCSE, James Chellis Charles Perkins, Matthew Strebe SecondEdition (BPB Publications)
• Local Area Networks, S.K.Basandra & S. Jaiswal, Galgotia Publications)

Reference Books:

• Computer Network, Andrew & Tanenbaum, (New Delhi Pearson)
• Data and Computer Communication, William Stallings,(New Delhi Pearson)
• Data Communication, Prakash C Gupta, (New Delhi PHI)

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Network administrator, network service provider, network engineer, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization, Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Computer networking, maintenance of network, implementation of Network, Organizing and Planning Networks	No poverty, Quality Education, Decent Work and Economic Growth	Can start own Computer Network assistance

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SEMESTER- 1st **Subject Code: : 4TPDC-105**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: COMMUNICATION SKILLS & PERSONALITY DEVELOPMENT **Theory Min. Marks 17**

COURSE OBJECTIVE:

Student will be able
1. To Understand how to communicate effectively and appropriately in real-life situation.
2. To use English effectively for study purpose across the curriculum.
3. To develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking,Writing.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	English Language- Listening, Speech, Pronunciation, Reading, Spelling, Writing Right Nouns : countable and uncountable, pronouns: Personal, Relative and Others, Articles. The parts of speech, the prepositions, clauses: Coordinate, Subordinate, Relative Adverbs, Adjectives and Adjective Phrases, Verb	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – II	The Model Auxiliaries, Adverb, Adverb Phrases Comparisons and Intensification, Linking Devices, Subject Verb Agreement, Tenses, Common Errors, Word Building, Vocabulary developing ability of question and answer, Body Language and Its Use in Speaking, Group Discussions, Interview Skills	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Case studies to understand organization of laptop like Dell, Lenovo etc.
Unit – III	Composition - Making a Technical Report, E-Mails and Text Messages Composing, Letter Writing, Paragraph Writing, E-mail Writing, Writing Resume, Writing a Cover Letter Personality development: Soft Skills Development, Body Language, Behavioral and Symptomatic Soft Skills, Etiquette and Manners, Positive Thinking, Motivation, Goal setting, Team building, Self Confidence, Leadership Skills, Time Management introduction to personalitya) Basic of Personality b) Human growth and Behavior c) Theories in Personality d) Motivation	Usage of ICT :-Power Points, PDF, Video lectures, Black board,
Unit – IV	Communication skills and Personality Development a) Intra personal communication and Body Language b) Inter personal Communication and Relationships c) Leadership Skills d) Team Building and public speaking	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Performed GD for student skill development
Unit - V	Techniques in Personality development I a) Self confidence b) Mnemonics c) Goal setting d) Time Management and effective planning techniques in personality development II a) Stress Management b) Meditation and concentration techniques c) Self hypnotism d) Self acceptance and self growth.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOMES:-

After study this student will be able to know about how to become active readers, what are thewriting skills and process. What are the oral communication skills

Reference Books:

1. “English Language and Indian Culture” - M.P.Universities' 1st year Foundation Course published byM.P.Hindi Granth Academy, Bhopal [Complete]
2. “Written Communication in English” by Sarah Freeman published by Orient Longman [Units I and II only]

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization, Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Development of the personality by personality development using improved english	NoPoverty,Quality Education, Decent Work and Economic Growth	Can start their own PD training calsses

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SEMESTER- 2d **Subject Code: 4TPDC-201**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: OBJECTS ORIENTED PROGRAMMING WITH C++ **Theory Min. Marks 17**

COURSE OBJECTIVE:

Student will be able
1. To understand the basic knowledge of opps with C++ language.
2. To understand the Structure & classes concepts, data member.
3 To understand the Array, Pointers operations.
4 To understand the Function overloading & Operator Overloading.
5. To understand the Inheritance & C++I/O system.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Overview of C++ - Overview of C++, Software crisis, Object oriented programming paradigm, Basic concepts of OOP, Advantages/Benefits of OOP, Usage/applications of OOP C++ Environment- Program development environment, The language and the C++ language standards, Introduction to various C++ compilers, The C++ standard library, Prototype of main() function, i/o operator, manipulator, comments, data types Creating and compiling C++ programs - TURBO C++ IDE, Creating, compiling and running a C++ program using IDE and through command line, Elements of C++ Language, Structure of a C++ program, C++ tokens, Type conversion in expressions Decision making and branching -Introduction, Sequential statements, Mathematical Functions, Branching statements, looping Statements, Nested loops, Programming examples Arrays and functions- Arrays, The meaning of an array, Single-dimensional arrays, Two-dimensional arrays (Multi-dimensional arrays), User Defined Functions, Elements of user-defined functions, Return values and their types, Function calls, Categories of functions, Passing parameters to functions, Recursion, Command Line Arguments, Storage Class Specifiers.	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Workshop on how to develop game using C++.
Unit – II	Classes and Objects - Classes, Structures and classes, Unions and classes, Friend function, Friend classes, Inline function, Scope resolution operator, Static class members, Static data members, Static member functions, Passing object to functions, Returning objects, Object assignment Array , pointers, references and the dynamic allocation operators - Array of objects, Pointer to object, Type checking in C++, The this pointer, Pointer to Derived Types, Pointer to class members, References, C++'s Dynamic Allocation Operators Constructors and destructors -Introduction, Constructors, Default Constructor, Parameterized constructors, Copy Constructors, Multiple Constructors in a class, Constructors with default arguments, Default Arguments, Special Characteristics of Constructor functions, Destructors	Usage of ICT :-Power Points, PDF, Video lectures, Black board

Unit – III	Function and Operator Overloading -Function overloading, Overloading Constructor Function, Finding the address of an overloaded function, Operator Overloading, Creating a Member Operator Function, Creating Prefix and Postfix forms of the increment (++) and decrement (– –) operators (Overloading Unary Operator), Overloading the Shorthand Operators (i.e. +=, == etc), Operator Overloading Restriction (Rules), Operator Overloading using friend function, Overloading new and delete operator, Overloading some special operators, Overloading [ ] (Subscripting) operator, Overloading() (Function Call) operator, Overloading Binary Arithmetic operators, Concatenating String, Overloading Comma (,) operator, Overloading the I/O operators.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – IV	Inheritance -Introduction to inheritance, Features or Advantages of Inheritance. Inheritance :, Base Classes and Derived Classes, Base Class Access Control, Protected Members, Protected Base class Inheritance, Inheriting Multiple Base Classes, Constructors, Destructors and Inheritance, Passing Parameters to Base Class Constructors, Granting Access, Virtual Base Classes Polymorphism -Polymorphism, Types of Polymorphism, Virtual Functions and Polymorphism, Pure Virtual Functions, Early Vs Late Binding	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit - V	The C++ I/O System Basics -The C++ I/O System basics, C++ predefined streams, Formatting using the ios members, Clearing Format Flags, An Overloaded form of setf( ), Examining the Formatted Flags, Using width( ), Using precision( ), Using fill( ), Using Manipulators to format I/O, Creating your own Manipulators.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOMES :–

Practicals:

1. WAP to add, subtract, multiply and divide two numbers using concepts of C++.
2. WAP to show swapping of two numbers using C++.
3. WAP to calculate volume of cube, cylinder, rectangular box using three times function overloading in C++.
4. WAP using virtual function.
5. WAP using copy constructor.
6. WAP to show multiple inheritances.
7. WAP to find mean value of two numbers using friend function.
8. WAP using inline function.
9. WAP to demonstrate the use of Local Object, Static Object & Global Object using C ++.
10. WAP in C++ to demonstrate the creation and the use of dynamic object.
11. Derive the two classes son and daughter and, demonstrate polymorphism in action.

Text Books:

• Object Oriented Programming With C++ R. Subburaj (Vikas Publishing House)
• Programming In C++ M Kumar (TMH Publications)

Reference Books:

• C++ E. Balguruswamy (TMH Publication)
• Object Oriented Programming C++ R. Lafore (Galgotia Publishing)
• C++ The Complete Reference Herbert Schildt (TMH Publication)

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Assistant programmer, software developer, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization, Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	To create applications that will run on a wide variety of hardware platforms. Problem Solving	No poverty, Quality Education, Decent Work and Economic Growth, industry innovation and infrastructure	Can teach and learn other computer languages.

DR. C.V.RAMAN UNIVERSITY

KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 2d **Subject Code: 4TPDC-202**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: RDBMS AND SQL **Theory Min. Marks 17**

COURSE OBJECTIVE:

Student will be able
1. To understand the basic knowledge of DBMS Concepts.
2 To understand the Database Design.
3 To understand the RELATIONAL DATA MODEL.
4 To understand the RELATIONAL DATABASE DESIGN.
5 To understand the Indexing & Hashing-Basic Concepts & Recovery System.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Introduction to DBMS & RDBMS -Introduction to database, Introduction DBMS, Different database models, Structure of DBMS, RDBMS an introduction, Cod's law for RDBMS, Components of rdbms (kernel/data dictionary) Introduction to oracle RDBMS and client/server computing -Introduction to Oracle, The Features of Oracle 9i, The oracle product details, An introduction to client/server computing, Oracle and client/server computing Overview of oracle architecture - Oracle Architecture, Oracle Files, System and User Processes, Oracle Memory, System Database Object, Protecting Data.	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Workshop on Oracle R Enterprise, Case studies of any DBMS
Unit – II	Introduction to SQL*PLUS -Introduction to SQL, Features of SQL, Components of SQL, Introduction to SQL*PLUS, Features of SQL*PLUS, Execution of SQL*PLUS, Important commands used in SQL*PLUS, Oracle Data-Types Working with tables -Tables - An Introduction, Use Of Table In SQL, Viewing The Stored Data In Tables, Filtering Table Data, Updating Data, Deleting Data From Tables, Modifying The Structure Of Tables, Destroying A Table, A Few Other SQL Statements. Data constraints -Data Constraints, The Use of Data Constraints, The Types of Data Constraints, Defining Integrity Constraints By 'Alter Table', Removing Integrity Constraints, 'Null' Value Concept, 'Not Null' Constraint, Default Value Concept, 'User Constraints' Table	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Individual presentation on Integrity Constraints.
Unit – III	Data Manipulation in SQL - Oracle Operators, Range Searching, Pattern Matching, LIKE 'IN' and 'NOT IN' Predicates, An Introduction to 'DUAL' Table, An Introduction to 'SYSDATE' Oracle functions- Oracle Function, Function Types, Group Function, Scalar Function, Working With 'Date' in SQL, Grouping Of Data Of Different Tables In SQL Joins , sub-queries & views-types of joins, use of sub-query, 'union' and clause, 'Intersect' Clause, Minus Clause, Concept of View, Types of View, Use of View	Usage of ICT :-Power Points, PDF, Video lectures, Black board, Group projects on Real time data. Group projects real time database handling.

Unit – IV	User Accounts Management & Indexing - Creation of User Account, User Account Management, Granting Privileges, Revoking Privileges, Modifying Password, Closing User Account, Concept of Index, Creation of Index, Types of Index, Use of Index, Deleting Index. Introduction to pl/sql programming- Introduction to PL/SQL, Advantages of PL/SQL, Differences between SQL and PL/SQL, PL/SQL Block Structure, PL/SQL Character set, Variable, Constant and Data type, Assignment Operator and the use of 'SELECT....INTO, PL/SQL Program Control Structure, The use of 'IF...THEN...ELSE...ENDIF', Iteration Control (The use of LOOP, WHILE, FOR), The use of 'GOTO Statement .cursor -Cursor an Introduction, Types of Cursor, Features of Cursor, Implicit Cursor, Explicit Cursor, Application of for Loop with Cursor.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit - V	Exception Handling in PL/SQL - Exception Handling in PL/SQL, Built in Exception Handling, User Defined Exception Handling, The Raise Application-error Procedure Oracle transaction- Oracle Transaction, Commit Statement, Rollback Statement, Save point statement, Concept of lock, Types of locks, Levels of Locks, 'SELECT.....FOR UPDATE' Statement, Removing the Lock. Procedures and functions-Concept of Procedures and Functions, Advantages of Procedure and Function, Creation of Procedure and Function, Deleting Procedure and Function Database triggers- Concept of Triggers, Types of Triggers, Creation of Triggers, Application of Triggers, Deleting Triggers.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOMES: –

After study this student will be able to know about and concepts & Fundamentals of DBMS,Concept of keys, RELATIONAL DATA MODEL & design.

Practical:

1. Write a query to implement Different types of DDL statements in SQL.
2. Write a query to implement Different types of DML statements in SQL.
3. Write a query to implement Different types of DQL statements in SQL.
4. Write a query to implement Different types of DCL statements in SQL.
5. Write a query to explore 'select' clause using where, order by, between, like, group-by,
6. Write a query to implement the concept of Joins in SQL.
7. Write a query to implement the concept of Indexes and views.
8. Write a query to implement the restrictions on the table.
9. Write a query to implement the concept of SubQuestionries.
10. Write a query to implement the structure of the table.

Text Books:

• Database Management System (H) Laad Ameet (Kamal Prakashan)
• Introduction to Database Management Systems Kahate Atul (Pearson)
• An introduction to database system Bipin C.Desai (New Delhi Galgotia)

Reference Books:

• Database Management System Leon & Leon (Vikas Publications)
• Database System Concepts Henry F.Korth & Abraham Silberschatz. (New york. MCGraw)
• An Introduction To Database System C.J.Date (New Delhi Pearson

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Data administrator, database developer, database trainer, oracle engineer, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization, Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Query processing, Database handling, Organizing and Planning Database, Handling data and query processing.	No poverty, Quality Education, Decent Work and Economic Growth, industry innovation and infrastructure	Can start own Data handling company.

DR. C.V.RAMAN UNIVERSITY

KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 2d **Subject Code: 4TPDC-203**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: COMPUTERISED ACCOUNTING WITH TALLY **Theory Min. Marks 17**

COURSE OBJECTIVE:

Student will be able
1. To understand the concept of Financial Accounting
2. To understand the knowledge about Tally.
3. To develop and integrate the use of Accounting
4. To understand Cheque Printing, Multi Account Printing etc.

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	**Accounting**, Meaning Of Accounting, Objectives Of Accounting, Important Terms, Accounting Equation, Rules Of Debit And Credit- Journal & Ledger, Journal, Ledger, Cash Book, Subsidiary Books, Financial Statement, Trading & P&L A/C, Balance-sheet, Inventory, Adjustment Entries, Bill Of Exchange **Installing Tally 9,** Introduction, Tally 9.0 (Release 1.0), Major Enhancements In Tally 9, Minor Enhancements In Tally 9, Multilingual Business Accounting And Inventory Management Features, Performance And Implementation Features, Accounting And Inventory Control Features, Installing Tally 9.0, Application Directory, Data Directory, Configuration Directory, Language Directory, Activating Tally, Activating Tally Gold For Multi User, Registering Tally, Validating Tally, Tally Data Migration Tool, Uninstalling Tally 9	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – II	**ABC of Company**, Creation Of New Company Selection Of New Company Deletion Of Company Alteration Of Company Shut A Company, **Company Features**, Features Of Company Accounting Features Inventory Features, , Statutory Features **Tally Screen Components**, Title Bar, Button Bar, Calculator, Working Are, Quitting, Gateway Of Tally, Current Status Area **Configuration**, General, Numeric Symbols, Accts/Inventory Info, Printing, Connectivity, Licensing, Shop, Quit **Budget**, Introduction, Budget, Creating Budget, Alter A Budget, Delete Budget, Display Budget/ Budget Variance, Scenarios	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – III	**Job Costing**, Introduction, Enabling Or Configure Job Costing In Tally, Master Creation For Job Costing, Voucher Type And Voucher Class, Job Cost Reports **Reports**, Introduction Accounting Reports, Trial Balance, Balance Sheet, Profit & Loss, Cash Flow Statement, Fund Flow Statement, Ratio Analysis, Day Book, Cash/Bank Book Sales Register Purchase Register Outstanding Interest Cost Centers Job Work Analysis Statistics Inventory Reports **Accounts Groups & Ledgers**, Introduction Accounts Group Multiple Group Creation Display Group Alter Group Multiple Ledgers Display Ledger Alter Ledger Voucher Types **Payroll Accounting**, Introduction, To Activate Payroll In Tally 9, Payroll Menu, Diaplay Pay Heads, Multiple Group Creation, Employee Creation, Salary Detail, Attendance, Attendance Type, Voucher Creation **Export & Import**, Introduction, Export, Import, ODBC Complianies	Usage of ICT :-Power Points, PDF, Video lectures, Black board

Unit – IV	**Cost Centre**, Introduction Cost Centre, Creating Cost Centre, Display Cost Centre, Alter Cost Centre Cost Category, Create Cost Categories, , Display Cost Categories, Alter Cost Categories Voucher Entry Cost Centre Class, Creating Cost Centre, Invoice Entry Using Cost Centre Reports Related To Cost Centre **Foreign Currencies**, Introduction Foreign Currency, Create Foreign Currency, Alter Foreign Currency, Display Foreign Currency, Exchange Rate Entry Voucher Entry Using Foreign Currency Voucher Entry Through Forex Journal Voucher Class Reports Related To Foreign Currency **Interest**, Introduction, Interest, Simple Mode, Interest On Outstanding Balances, Reports On Interest Calculated On Outstanding Balances, Advanced Parameter Mode, Interest Calculation Transaction By Transaction/Voucher Interest At Fixt Rate, Voucher Interest At Variable Rate, Statement Of Interest Due On Invoice, Interest Reports, Interest Voucher Class.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit - V	**Printing**, Introduction Cheque Printing Printing Of Cheque Multi Account Printing Printing Options General,Purchase Printing, Sales Transaction, Receipt Voucher, Journal/Contra, Debit/Credit Note, Reminder Letter, Confirmation Statement Reports Printing Button Related. **Bank Reconciliation**, Introduction, Bank Reconciliation In Tally 9, Configuration Of Bank Reconciliation. **Security Control**, Introduction Security Levels Access Type. **Backup & Restore**, introduction, Group Company, Create a Group Company, Alter a Group Company, Tally Audit,Splitting Company Data. **Inventory**, Introduction Stock Group Stock Item Stock Categories Godowns Units Of Measures Rate Of Duty Inventory Vouchers Reorder Level Inventory Reports Inventory Info Inventory Books Statement Of Inventory Batch Wise Details Price List.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOMES: -

After study, the student will be able to know about Accounting, Company, Company Features,Features of Company Accounting, Interest Calculation Transaction and Cheque Printing, MultiAccount Printing

Reference Book:

1. Implementing Tally 6.3 by Nadhani; BPB Publications
2. BPB Tally 6.3 by BPB Editorial Board (Hindi) BPB Publications

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Training and Support in Institutions/universities Research and Academics System Analyst in State and Central Research organization,Consultant in Software firms,Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Logical reasoning, analysis of data, Organizing and Manipulating Data.	Quality Education,Decent Work and Economic Growth	Can start own Accountant consultency

DR. C.V.RAMAN UNIVERSITY

KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 2d **Subject Code: 4TPDC-204**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: INTRODUCTION TO INTERNET & WEB TECHNOLOGY **Theory Min. Marks 17**

COURSE OBJECTIVE:

1. To understand the basic knowledge of computer
2. To understand the assembly-level programming
3. To understand the input output devices, storage media, memory .
4. To understand the concept of MIS, Networking devices

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Internet - Evolution, Protocols, Interface Concepts, Internet Vs Intranet, Growth of Internet, ISP, Connectivity - Dial-up, Leased line, VSAT etc., URLs, Domain names, Portals, Application. Word Wide Web (WWW) - History, Working, Web Browsers, Its functions, Concept of Search Engines, Searching the Web, HTTP, URLs, Web Servers, Web Protocols Browsers - features, services offered by browsers, browsers evaluation, extensions and plug-ins for browsers, some important plug-ins introduction like - flash, java, silverlight, etc. features of some major browsers - IE, Firefox, and Google Chrome.E-mail- Process, obtaining an e-mail address, types of email services - Web based and POP3. Understanding e-mail address, SMTP and MIME protocols, Using web based and pop3 e-mail - creating a message, sending a message, CC, BCC, replay, forward, reply to all, attach a document, add signature to mail, spam mails handling, junk mails, etc. email clients software - installation and configuration. Configuring and Using Outlook Express.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – II	File Transfer using FTP - F'I`P Process fundamentals, How to use FTP using browsers, FTP using client software like - Cute F'I`P, WS FTP, File Zilla etc. File formats and Transfer types, Anonymous and non-anonymous F'I`P. E-Mail - Concepts, POP and WEB Based E-mail ,merits, address, Basics of Sending & Receiving, E-mail Protocols, Mailing List, Free Email services. Internet Protocols - Data Transmission Protocols, Client/ Server Architecture & its Characteristics, FTP & its usages. Telnet Concept, Remote Logging, Protocols, Terminal Emulation, Massage Board, Internet chatting - Voice chat, text chat. Web publishing - Concepts, Domain name Registration, Space on Host Server for Web site, HTML, Design tools, HTML editors , Image editors, Issues in Web site creations & Maintenance, F'TP software for upload web site.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – III	HTML - Concepts of Hypertext, Versions of HTML, Elements of HTML syntax, Head & Body Sections, Building HTML documents, Basic Tags of HTML - HTML Tag, TITLE Tag, BODY Tag, Formatting of Text - Headers, Formatting Tags, PRE Tag, FONT Tag, Size, Color and other attributes, Special Characters, Working with Images, META Tag, Links - Anchor tag, Lists - Unordered Lists, Ordered Lists, Definition Lists, Tables - TABLE, TR and TD Tags, Cell Spacing and Cell Padding, Colspan and Rowspan, Frames-Frameset, FRAME Tag, NOFRAMES Tag, Forms - FORM and INPUT Tag, Text Box, Radio Button, Checkbox, SELECT Tag and Pull Down Lists, Hidden, Submit and Reset, Some Special Tags - COLGROUP, THREAD, TBODY, TFOOT, _blank, _self, _parent, _top, IFRAME, LABEL, Attribute for <SELECT>, TEXTAREA ,Introduction to WYSIWYG Design tools for	Usage of ICT :-Power Points, PDF, Video lectures, Black board

	HTML, Overview of MS FrontPage/ Macromedia Dreamweaver/ MS Expression Web and other popular HTML editors, designing web sites using MS FrontPage/ MS Expression Web.	
Unit – IV	Interface basics, Create your first page, View your page in browser, Insert hyperlinks , insert image, text alignment and formatting, Insert Images, bookmarks, setting up background, images and colors, Creating tables, table properties, cell properties, background pictures and colors, create list, bullets and headlines, Introduction to CSS, using CSS. Javascript Overview, Javascript vs. VBScript, Javascript vs. Java, Javascript versions, Script element,syntax& conventions. Variables, Expressions, Branching 85 Looping statements, Functions, Arrays Objects, Events 81; Document Object Model - onClick, onMouseOver, onSubmit, onFocus, onChange, onBlur. onLoad, onUnload. Alerts, Prompts 85 Confirms, Getting data with forms.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit - V	E - Commerce An introductions, Concepts, Advantages and disadvantages, Some popular E-commerce sites of World and India - Amazon, e-bay, rediff, irctc etc. (at least 10 from World and 10 from India) Technology in ECommerce, Internet 85 E-business, Applications, Feasibility & various constraints. E-transition challenges for Indian corporate. Electronic Payment Systems: Introduction, Types of Electronic Payment Systems, Digital Token-Based Electronic Payment Systems, Smart Cards and Electronic Payment Systems, Credit Card-Based Electronic Payment Systems, Risk and Electronic Payment Systems.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOME:-

After study this student will be able to know about programs based upon HTML and DHTML concepts,create animation & events based upon java script concepts, connect an application with database

Practical:

1. WAP which shows headings five time in ascending order. Align the heading also.
2. Write a program which show four paragraph under four headings.
3. Write a program for formatting the text &marked highlighted text.
4. Write a program for some text using CSS technique.
5. Write a program to insert an image in a page.
6. Write a program to make a table for any company employee's data record.
7. Write a program to make forms for different uses.
8. Write a java script to print the heading and paragraph & also create a button
9. Write a program to upload video on web page.
10. Write a program to change the back ground of any page.
11. Write a program to create a link between page.

Text Books:-

• Internet & Web Design A. Mansoor Pragya Publications.

Reference Books:-

• Learn HTML in a weekend, Steven E. Callihan, HI
• Using HTML, Lee Anne Phillips, PHI
• SAMS Teach YourselfJavascript in 24 Hrs. Michael Moncur, TechMedia
"Programming In Java", 2nd Edition, E. Balaguruswamy, TMH Publications ISBN 0-07-463542-5
• "Peter Norton Guide To Java Programming", Peter Norton, Techmedia Publications ISBN 81-87105-61-5
• JAVA, How to Program, Deitel&Deitel, PHI, Pearson

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Web developer, web service provider, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central Research organization,Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Enabling Knowledge, Critical Analysis, Problem Solving, Communication, Organizing and Planning, Analysing	No poverty, Quality Education, Decent Work and Economic Growth	Can start own Web designing company or network assistant and management organization

DR. C.V.RAMAN UNIVERSITY

KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 2d **Subject Code: 4TPDC 205**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: PROGRAMMING WITH VB.NET **Theory Min. Marks 17**

COURSE OBJECTIVE:

• The aim of the course is for the student to aim knowledge in the basic concepts of object-oriented programming and build skills to develop modern software programs using the language Visual Basic. The course is also suitable for students with prior programming experience who wish to strengthen their knowledge in the area of object-oriented design and programming with Windows.
• Analyze program requirements
• Design/develop programs with GUI interfaces
• Code programs and develop interface using Visual Basic .Net
• Perform tests, resolve defects and revise existing code

Syllabus:

Unit	Unit wise course contents	Methodology Adopted
Unit – I	Introduction to .NET - Introduction, What is a Program?, What is Programming?, What do you mean by .NET Framework?, Features of .NET Framework, VB 6 VS VB.NET, VB.NET VS JAVA, VB.NET VS C#, What is .NET Architecture?, What is CLR?, What do you mean by Class Library?, Versions of .NET Framework, What are Assemblies?, Namespaces, CTS (Common Type System), Interfaces, What is special in VB.NET? Visual studio 2005-Introduction, What is Visual Studio?, Flavors of Visual Studio, Visual Studio 2005, File Extensions Used in VB.Net, Using Visual Studio 2005, Feature of Visual Studio 2005, Output Window, Components Tray, References and the Reference Window, Quick View of Visual Studio 2005, Opening an existing project, Adding a Form to a Project.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – II	The Visual Basic Language - Visual Basic Statements, Data Types in VB.NET, Declaring Variables, Declaration of Variables (Advanced), Data Type Conversion, String Functions, Formatting Data, Arithmetic Operators, Parentheses and Precedence, Operator Operation, Constants, Control Statements, Arrays in VB.NET, Specifying Optional Procedure Arguments, Passing a Variable Number of Arguments, Recursion, Using a Delegate working with the controls- The Toolbox, Adding and deleting Tools in the Toolbox, creating a tab on the toolbox, Form Designer Basics, The Button, The ComboBox , The ListBox, The Checkbox, The PictureBox, The RadioButtons, The Scroll Bar, Timer, ListView, TreeView, Toolbar, Dialog Boxes, Menus in VB.NET, LinkLabel Control	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit – III	Designing Menus - Menus, Context menu, Event of the MenuItem, Creating menu items in Visual Studio .Net Object oriented programming with vb.net- OOPs?, What is an Object?, What are Classes?, Visual Basic .NET and Object-Oriented, Principles of Object-Oriented Programming, Classes V/s Objects, Inheritance, Polymorphism and Overloading, Scope and Accessibility in Class Modules, Namespaces, Managed Execution, Assemblies, Assemblies in VB .NET The .net framework class library- The .NET Framework Class Library, The System Namespace, Data Type Conversion Using Convert Class, The Array Class, The Math Class, The String Class, Other Namespaces, System.Collections, System.Data, System.IO Ole/com/win32 api- Object Linking and Embedding, History of OLE/COM, Component Object Model (COM), COM interoperability in .NET, Win32 API in .NET, COM Interoperability in .NET, Installation and Registration of Assembly, Microsoft Office solutions with Visual Studio .NET, Automation of Office from Visual Studio .NET, Creating and opening Microsoft Word	Usage of ICT :-Power Points, PDF, Video lectures, Black board

	document from VB.NET	
Unit – IV	User Controls in VB.NET - Introduction, The Control Class, The Control Class' Properties, The Control Class, Methods, Creating the Control Project 1, The Round Button Control, Creating the Control Project 2, Building the new Button, A brief introduction to database access with vb .net- Introduction, What is ADO?, What is ADO.NET?,The Connection Object, Connecting to a Database, The Command Object, The DataAdapter Object, The DataReader Object, The DataSet Object, Updating Your Database by Using DataSets, The AcceptChanges () Method, TheRejectChanges () Method, The HasChanges () Method, The GetChanges () Method, Working with DataSets in Visual Studio, Moving Around in DataSet and Retrieving Data, Using Strongly Typed DataSets, DataSets With Multiple Tables, Finding and Sorting Data in DataSets, Filtering on Row State and Version, Data View Manager.	Usage of ICT :-Power Points, PDF, Video lectures, Black board
Unit - V	Graphics In VB.NET - Introduction, Service of GDI+, Using GDI+ Manged Classes, BRUSH Class, Bitmap Class, Graphics Class, Simple Drawing, Drawing Text, An Example: Show All Fonts, Printing, Printing Multiple Pages, More on the PrintPageEventArgs Class, Using a Print Dialog Control, Rolling Your Own Printing Code, Print Preview.	Usage of ICT :-Power Points, PDF, Video lectures, Black board

COURSE OUTCOMES: –

After the completion of the course, students are expected to:
1.have gained a good understanding of the basic concepts of object orientation
2.have a good understanding of the Visual Basic language structure and language syntax
3.have developed the ability to design and develop interactive applications using the object-orientedprincipals, encapsulation, inheritance and to some extents polymorphism
4.be able to effectively develop applications with full functionality and a graphical user interface usingthe language Visual Basic
5.have the capability of analysing and finding suitable and effective solutions to Windows based applicationsusing classes and objects

Practicals:

1. In current syllabus Visual Studio 2005 exist but we are performing practical on Visual Studio 2012 or aboveversion and in market higher version are used. So we should change it .
2. Practical List in the given syllabus is slightly wrong so we suggest some new practical list for given course.
1. Create an application to accept a character from console and check the case of the character
2. Write a VB.Net program to accept any character from keyboard and display whether it is vowel or not.
3. Write a VB .NET program to accept a string and convert the case of the characters
4. Develop a menu based VB .NET application to implement a text editor with cut, copy, paste, save and closeoperations.
5. Write a program to implement the calculator with memory and recall operations.
6. Develop a form in VB .NET to pick a date from calendar control and display the day, month, year inseparate textboxes.
7. Develop a VB .NET application using the File and Directory controls to implement a common dialog box.
8. Develop a Database application to store the details of students using ADO.NET.
9. Develop a Database application using ADO.NET to insert, modify, update and delete operations.
10. Develop a VB.NET application using Datagrid to display record

Text Books:-

• VB.NET Programming Hemant Bairagee (Indore Kamal Prakashan)
• Programming In Visual Basic.NET (H) Vishnu Priya Singh (New Delhi :ComputechPublication)

Reference Books:

• VB.NET Programming Black Book Steven holzner (dreamtech publications)
• Mastering VB.NET by Evangelos petroutsos- BPB publications

Job Opportunities	Employability Skill Developed	Local/National/UNDP Goal Achieved	Entrepreneurship Opportunity
Programmer, software engineer, software developer, Training and Support in Institutions/universities, Research and Academics, System Analyst in State and Central	Ability to plan and project-manage, Debugging Time management,	No poverty, Quality Education, Decent Work and Economic Growth, industry innovation and infrastructure	Can start own application developing company.

Research organization, Consultant in Software firms, Quality Assurance and Testing in Public and Private sectors, Application Customization and Development, Start own venture	Learning new skills as required Problem Solving		

DR. C.V.RAMAN UNIVERSITY

KARGI ROAD, KOTA, BILASPUR (C.G.)

SEMESTER- 2d **Subject Code: 4TPDC 206**
Course: PGDCA **Theory Max. Marks: 50**
SUBJECT: PROJECT REPORT **Theory Min. Marks 17**

COURSE OBJECTIVE:

PATTERN :

A two-three weeks project topic will be assigned to each of the student in a group on the related topics studied in theSemester on which student shall prepare a project report and submit to the University. Detailed Guidelines related tothe Minor project can be obtained in the contact-class or can be downloaded from the website.

All the candidates of PGDCA are required to submit a project-report based on the work done by him/her during the project period. A detailed Viva shall be conducted by an external examiner based on the project report.