



CHRISTIAN EMINENT COLLEGE, INDORE

(Academy of Management, Professional Education & Research)

An Autonomous Institution Established in 1996

NAAC (UGC) Accredited WITH GRADE "A"

F-Sector, H.I.G., Ravi Shankar Shukla Nagar Main Road, Indore (M.P.) – 452011

2022-23

Scheme of Examination



CBCS System

Scheme of Examination

&

Syllabus

For

Post Graduate Diploma in Computer Application

PGDCA

Ist & IInd Semester

SESSION 2022-23

CHRISTIAN EMINENT COLLEGE, INDORE

ACADEMY OF MANAGEMENT, PROFESSIONAL EDUCATION & RESEARCH

An Autonomous Institution Established in 1996

AFFILIATED TO DEVI AHILYA VISHWAVIDYALAYA, INDORE

F-SECTOR, R.S.S. NAGAR, H.I.G. MAIN ROAD, INDORE



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2022-23

Scheme of Examination

P.G.D.C.A. Part I – Semester I

COURSE	CREDITS	TOTAL HOURS	LECTURE HOURS PER WEEK	MIN. GRADE POINT OUT OF 10
CORE COURSE				
PGDCA-T101 FUNDAMENTALS OF COMPUTER	04	64	04	04
PGDCA-T102 C LANGUAGE	04	64	04	04
PGDCA – T103 PC PACKAGES	04	64	04	04
PGDCA-T104 OPERATING SYSTEMS	03	48	03	04
PGDCA-T105 SYSTEM ANALYSIS & DESIGN	02	32	02	04
PGDCA-P106 PRACTICAL COURSE C LANGUAGE & PC PACKAGES	02	32	04	04
PGDCA-P107 PROJECT PHASE-1ST (ANALYSIS & DESIGN PART)	02	32	04	04
SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC)				
PGDCA – 108 SKEG (ANY ONE)	SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC/GC)			
SKEG-T103 COMMUNICATIVE ENGLISH	03	48	03	04
SKEG-T107 FUNDAMENTALS OF BANKING & INSURANCE				
SKEG-T108 HEALTH EDUCATION				
SKEG-T119 PERSONALITY DEVELOPMENT				
TOTAL	24	384	28	



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Scheme of Examination

PGDCA – Semester I

Course	Max. Marks				Min. Marks		
	External Theory Examination	Internal Theory Examination	Practical Examination	TOTAL MARKS	External Theory Exam.	Internal Theory Exam.	Practical Marks
PGDCA-T101 FUNDAMENTALS OF COMPUTER	70	30	-	100	28	12	-
PGDCA-T102 C LANGUAGE	70	30	-	100	28	12	-
PGDCA – T103 PC PACKAGES	70	30	-	100	28	12	-
PGDCA-T104 OPERATING SYSTEMS	70	30	-	100	28	12	-
PGDCA-T105 SYSTEM ANALYSIS & DESIGN	70	30	-	100	28	12	-
PGDCA-P106 PRACTICAL COURSE C LANGUAGE & PC PACKAGES	-	-	50	50	-	-	20
PGDCA-P107 PROJECT PHASE-1ST (ANALYSIS & DESIGN PART)	-	-	50	50	-	-	20
SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC)							
PGDCA – 108 SKEG (ANY ONE)	SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC/GC)						
SKEG-T103 COMMUNICATIVE ENGLISH	70	30	-	100	28	12	-
SKEG-T107 FUNDAMENTALS OF BANKING & INSURANCE							
SKEG-T108 HEALTH EDUCATION							
SKEG-T119 PERSONALITY DEVELOPMENT							
TOTAL MARKS	420	180	100	700	-	-	
GRAND TOTAL	700				315		



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Scheme of Examination

P.G.D.C.A. Part I – Semester II

COURSE	CREDITS	TOTAL HOURS	LECTURE HOURS PER WEEK	MIN. GRADE POINT OUT OF 10
CORE COURSE				
PGDCA-T201 WEB DESIGNING	04	64	04	04
PGDCA-T202 VISUAL BASIC PROGRAMMING	04	64	04	04
PGDCA-T203 RDBMS USING ORACLE	03	48	03	04
PGDCA-T204 COMPUTER NETWORKING	03	48	03	04
PGDCA-T205 INTERNET & E- COMMERCE	03	48	03	04
PGDCA-P206 PRACTICAL ON VB, HTML, ORACLE	02	32	04	04
PGDCA-P207 PROJECT PHASE –IIND (CODING & IMPLEMENTATION PART)	02	32	04	04
SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC)				
PGDCA – 208 SKEG (ANY ONE)	SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC/GC)			
SKEG-P102 BASIC COMPUTERIZED ACCOUNTING	03	48	03	04
SKEG-T108 HEALTH EDUCATION				
SKEG-T116 MANAGERIAL SKILLS				
SKEG-T119 PERSONALITY DEVELOPMENT				
TOTAL	24	384	28	



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Scheme of Examination

PGDCA – Semester II

Course	Max. Marks				Min. Marks		
	External Theory Examination	Internal Theory Examination	Practical Examination	TOTAL MARKS	External Theory Exam.	Internal Theory Exam.	Practical Marks
PGDCA-T201 WEB DESIGNING	70	30	-	100	28	12	-
PGDCA-T202 VISUAL BASIC PROGRAMMING	70	30	-	100	28	12	-
PGDCA-T203 RDBMS USING ORACLE	70	30	-	100	28	12	-
PGDCA-T204 COMPUTER NETWORKING	70	30	-	100	28	12	-
PGDCA-T205 INTERNET & E- COMMERCE	70	30	-	100	28	12	-
PGDCA-P206 PRACTICAL ON VB, HTML, ORACLE	-	-	50	50	-	-	20
PGDCA-P207 PROJECT PHASE –IIND (CODING & IMPLEMENTATION PART)	-	-	50	50	-	-	20
SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC)							
PGDCA – 208 SKEG (ANY ONE)	SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC/GC)						
SKEG-P102 BASIC COMPUTERIZED ACCOUNTING	-	-	100	100	-	-	40
SKEG-T108 HEALTH EDUCATION	70	30	-	100	28	12	-
SKEG-T116 MANAGERIAL SKILLS							
SKEG-T119 PERSONALITY DEVELOPMENT							
TOTAL MARKS WITH 208 A	350	150	200	700	-	-	
TOTAL MARKS WITH 208 B	420	180	100	700	-	-	
GRAND TOTAL	700				315		



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Scheme of Examination

Under CBCS System

Part I – Semester I & II

- Under CBCS System, PGDCA has been distributed in two parts namely – Core and Elective. The subjects related to course are Core and compulsory. In each semester the students have to opt one Elective Course from prescribed Electives.
 - The minimum credits for each course are 20 and maximum may be 24. The credits are finalized with the requirements of respective course.
 - The total minimum credits for completing the course are 40.
 - For each course there will be 70% marks for External Examinations and 30% for Internal Examinations (CCE). The students have to clear both External and Internal Examinations separately.
 - The pass marks in individual paper will be **40%** and in aggregate **45%**.
 - The subject wise marks obtained by the student will be converted into prescribed 10 Point Grade Scale. The prescribed Grade Scale and related information are available in Examination Rules and for details follow or refer prescribed CBCS Guidelines.
 - The students who are **awarded ATKT in two subjects** will be eligible to appear in the examination of next semester. However the student **will not be allowed** to appear in the next semester examination with more than **four ATKT at a time**.
 - In case of more than two ATKT in a particular semester will be considered as fail in that semester and the student has to reappear in that particular semester examination.
 - ATKT students have to follow the old syllabus but repeaters have to take the examination with the new syllabus.
 - A student will have to compulsorily clear a program within **Two Academic Years** including the academic year of the admission, failing which he /she will not be allowed to continue the course. If a student doesn't clear all the semesters of the course in the above three years completely, then all his/ her previous result will be treated as null and void.
 - Only those students who clear the program in one attempt and without gap will be eligible for position in the **Merit List**.
 - A student who fails in aggregate is permitted to appear in **any one or two** papers of his/her choice to make up for the shortfall in the aggregate. Such a student can also appear in all the papers of that semester as an ex-student, provided the student applies for the same in the beginning of the semester.
 - The students who are declared fail in aggregate will be eligible to appear in external theory examination of the corresponding papers only.
 - Any point regarding the examination in the above scheme, which is not covered, will be applicable as per the examination scheme of respective course declared by the University or M.P. Government, whichever may be applicable, and the final decision in this regard will be taken by the Principal on the recommendation of Examination Committee.
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Syllabus *PGDCA – Semester I*

PGDCA - T101 – CORE COURSE I – FUNDAMENTALS OF COMPUTER

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week 04 Hours

Total Lectures: 64

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	13 Lectures
Evolution of Computers: Generations, Types of computers, Computer system characteristics, Block Diagram of computer , Basic components of a Digital Computer - Control unit, ALU, CPU, Bus Architecture , Computer Classification. Number System: Decimal, Binary, Octal, Hex representation and their conversions. Coding System: BCD, ACCESS-3, GRAY, ASCII, EBCDIC	
Unit-II	13 Lectures
Input / Output Units: Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, MICR, OCR, OMR, Bar-code Reader, Voice Recognition, Light pen, Touch Screen, Monitors and types of monitor -Digital, Analog, Size, Resolution, Refresh Rate, Printers & types - Daisy wheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter .	
Unit-III	13 Lectures
Memory: RAM, ROM, PROM, EPROM, EEPROM, Storage fundamentals - Primary Memory Vs Secondary Memory, Various Storage Devices - Magnetic Tape, Magnetic Disks, Hard Disk, Floppy Disks (Winchester Disk), Optical Disks, CD, VCD, CD-R, CD-RW, Zip Drive, flash drives, USB Pen drive.	
Unit-IV	13 Lectures
Software and its Need, Types of Software: System software, Application software, System Software - Operating System, Utility Program, Algorithms , Flow Charts - Symbols, Rules for making Flow chart, Programming languages, Assemblers, Compilers and Interpreter, Computer Applications in Business.	
Unit-V	12 Lectures
Introduction to Internet: Connecting to the Internet Hardware , Software & ISPs, Search Engines, Web Portals, Online Shopping, Email – Types of email, Compose and send a message. Reply to a message, Working with emails.	

BOOKS:

1. B. Ram, Computer Fundamentals, New Age International Publishers
 2. S. K. Basandra, "Computers Today ", Galgotia Publications.
 3. P. K. Sinha, Computer Fundamentals, BPB Publication
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Syllabus

PGDCA – Semester I

PGDCA - T102 – CORE COURSE II – C LANGUAGE

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week : 04 Hours

Total Lectures: 64

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	12 Lectures
Programming Languages and Language Processors: Machine Language, Assembly Language, Generations of Programming Language, Structured Programming, Assembler, Compiler, Interpreter. Programming Tools: Algorithms, Flowchart.	
Unit-II	12 Lectures
Introduction to C Language: Structure and Rules for 'C' program. Basic terms of C: Tokens, Operators, Variables, Expressions, Constants & their types, Data Type, Storage classes, I/O Functions.	
Unit-III	14 Lectures
Control Statements: Decision control: If-Else, Case control: Switch Loop control: while, do-while, for, break, continue, go to. Function: Function Prototype, Definition, Parameter Passing, Recursion and their types. Arrays: One-dimensional, Two-dimensional and Multidimensional Arrays. Structure and Union: Declaration, Initialization and accessing.	
Unit-IV	14 Lectures
Strings: What are strings, string library functions: strlen(), strcpy(), strcat(), strcmp(). Pointer: Pointer variable Address operator, Pointer arithmetic, Pointer to Pointer. Dynamic Memory Allocation: malloc(), calloc(), realloc(), free().	
Unit-V	12 Lectures
Files: Types of files in C. Defining, Opening and Closing a file, Input-Output operation on files, Different file access modes, copy and Merging of files.	

BOOKS:

1. T. Jeyapoovan, A First Course in Programming with 'C',
 2. Let us C by Y. Kanetkar
 3. E Balaguruswami, Programming with C
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Syllabus

PGDCA – Semester I

PGDCA - T103– CORE COURSE III – PC PACKAGES

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week : 04 Hours

Total Lectures: 64

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	13 Lectures
MS-Windows: Operating system-Definition & functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel – display properties, adding and removing software and hardware, setting date and time, screen saver and appearance, windows accessories.	
Unit-II	13 Lectures
MS-Word: Introduction to MS-Word and its features, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word; Mail Merge, Macros, Tables, File Management, Printing, Styles, linking and embedding object, Template.	
Unit-III	13 Lectures
MS-Excel: Worksheet, Features, Creating, Saving, Opening, Deleting, Quitting. Toolbars: Menus, Keyboard Shortcuts. Working with single and multiple workbook: Copying, Adding, Moving, Deleting. Working with Formulas Cell referencing: Auto-sum, Copying formulas, Absolute & Relative Addressing.	
Unit-IV	12 Lectures
MS-Excel: Formatting Worksheet: Auto-format, Alignment, Character styles, Column-width, Date format, Borders & Colours, Currently sign. Previewing & Printing worksheet: Page setting, Print titles, Adjusting margins, Page break, Headers & Footers. Graphics & Charts: Using Wizards, Various charts type formatting grid lines & Legends, Previewing & Printing charts. Functions: Database, Date & Time, Maths & Trigonometry, Statistical, Text and Logical.	
Unit-V	13 Lectures
MS-Power Point: Presentation Graphics-MS Power Point: Features and Basic terms, Creating presentation by using Wizards, Toolbars, Menus & Different Views. Working with Slides: Create Move, Copy, Delete, Duplicate, Lay-Outing of Slide, Zoom. Printing Presentation: Printing Slides, Notes, Handouts and Outlines.	

BOOKS:

1. Office97 Interactive Course by Greg Perry, Techmedia
 2. PC Software, Kamal Prakashan
 3. Microsoft Office97 by Gini Courter & Annette Marquis, BPB
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Syllabus *PGDCA – Semester I*

PGDCA - T104 – CORE COURSE IV – OPERATING SYSTEMS

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 03 Hours

Total Lectures: 48

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	08 Lectures
Introduction to OS: Definition, Types, Functions, Batch processing, Multiprogramming, Multi user, Multi tasking, OS structure, Shell, Kernel. RTS: Definition of Real Time OS, Features, Hard Real Time OS, Soft Real Time OS, Examples of Real Time OS.	
Unit-II	12 Lectures
Process: Definition, Life Cycle, PCB (Process Control Block), IPC, Critical Section. Deadlock: Reasons, shared variable problem, Methods for resolving deadlocks. Process Scheduling: Preemptive and Non-preemptive scheduling like: FCFS, SJF, Round Robin, Priority Based Scheduling, Priority inversion problem.	
Unit-III	10 Lectures
Memory Management: Static and dynamic memory management, Paging, Segmentation, Demand Paging, Page Replacement Algorithms, Free Space Management. File and disk Management: File and directory concepts and their types, File attributes, File allocation Table.	
Unit-IV	10 Lectures
DOS (Disk Operating System): DOS Basics: Booting, Post, BIOS, COM, EXE & Batch File. DOS Commands: Internal Commands: DIR, MD, CD, RD, COPY, DEL, REN, VOL, VER, DATE, TIME, CLS, PATH, TYPE, PROMPT. External Commands: CHKDSK, DOSKEY, XCOPY, MOVE, TREE, DEL TREE, LABEL, FORMAT, UNFORMAT, PRINT, FDISK, SORT, MORE, ATTRIB, SYS, DISKCOPY, DISKCOMP, BACKUP, RESTORE.	
Unit-V	08 Lectures
Linux: History & Features, File structure, various flavors of Linux, Process creation and process identifiers, Kernel & Shell. Linux Commands: ls, cat, who, who am I, cal, clear, date, banner, bc, cd, mkdir, rm, rmdir, tty, cp, mv, chmod, chgrp, chown, cmp, find, ps, kill, wc	

BOOKS:

1. Operating system by Bhatt
 2. Operating System by Achut Godbole
 3. Concepts of Operating System-Kamal Prakshan
 4. Linux Complete by BPB Publications
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Syllabus *PGDCA – Semester I*

PGDCA - T105 – CORE COURSE V – SYSTEM ANALYSIS & DESIGN

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 02 Hours

Total Lectures: 32

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	08 Lectures
System and its types, Different software Engineering Models, Preliminary Investigation for System, Feasibility Study and its types, Cost/Benefit Analysis and its methods, Information finding Methods.	
Unit-II	06 Lectures
Analysis: Tools for Structured Analysis: Flow Chart, DFD, Data Dictionary, Decision Tree, Decision Table.	
Unit-III	06 Lectures
Design: Input, Output, Form, Database. Testing: Black Box, White Box, Alpha, Beta, Unit, Integration, and System.	
Unit-IV	06 Lectures
Implementation: Methods of Deployment, System Conversion, User Training. Post Implementation: Planning, Maintenance, Extendibility, Replacement.	
Unit-V	06 Lectures
UML (Unifying Modeling Language): Concept of UML, UML Symbols, Basic UML Terms. UML Diagrams: Use-Case, Sequence, Collaboration, Object, Class, Package, State Chart, Activity etc.	

BOOKS:

1. Awad, System Analysis & Design
 2. Software Engineering by Pressman
 3. SAD & Software Engineering by Kamal Prakashan
 4. Instant VML by Pierre Alain Muller Worx Pub.
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Syllabus PGDCA – Semester I

PGDCA - P106 – CORE COURSE VI –

PRACTICAL COURSE IN 'C' LANGUAGE AND PC SOFTWARE PACKAGE

MAX. MARKS: 50

MIN. PASS MARKS: 20

No. of Laboratory per week: 04 per Hour

Total Lectures: 64

The Students have to prepare a list of minimum 50 programs which are simple, advanced and mathematical under the guidance of respective faculty.

S. NO.	List of Programs																								
1.	Write a C Program to Find the Area of a Circle using the Formula: Area = PI * r ²																								
2.	Write a C Program to Convert Centigrade into Fahrenheit. Formula: C= (F-32)/1.8.																								
3.	Write a C Program to Swap Variable Values of i and j.																								
4.	Write a C Program to Find the Maximum from given Three nos.																								
5.	Write a C Program for Calculator Designing using Switch /Case Loop?																								
6.	Write a C Program to Find the sum of First 100 Natural nos.																								
7.	Write a C Program to Find the sum of First 100 Odd nos. and Even nos.																								
8.	Write a C Program to Display First 25 Fibonacci nos.																								
9.	Write a C Program to Find Factorial of Accepted nos.																								
10.	Write a C Program to Find the Sum of Digits of Accepted no.																								
11.	Write a C Program to Print the Accepted no and its Reverse no.																								
12.	Write a C Program to Print all the Factors of Accepted no.																								
13.	Write a C Program to Find all the Prime Number between two given Numbers.																								
14.	Display the following Output on Screen (Assuming the value for Input Parameter n=5) : <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>a.</th> <th>b.</th> <th>c.</th> <th>d.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>*</td> <td>A</td> <td>*****</td> </tr> <tr> <td>12</td> <td>**</td> <td>AB</td> <td>****</td> </tr> <tr> <td>123</td> <td>***</td> <td>ABC</td> <td>***</td> </tr> <tr> <td>1234</td> <td>****</td> <td>ABCD</td> <td>**</td> </tr> <tr> <td>12345</td> <td>*****</td> <td>ABCDE</td> <td>*</td> </tr> </tbody> </table>	a.	b.	c.	d.	1	*	A	*****	12	**	AB	****	123	***	ABC	***	1234	****	ABCD	**	12345	*****	ABCDE	*
a.	b.	c.	d.																						
1	*	A	*****																						
12	**	AB	****																						
123	***	ABC	***																						
1234	****	ABCD	**																						
12345	*****	ABCDE	*																						
15.	Write a C Program to Find Minimum, Maximum, Sum and Average of the given one Dimensional Array.																								
16.	Write a C Program to Perform the basic Matrix Operations Addition, Subtraction, Multiplication.																								
17.	Write a C Program to Check given String is Palindrome or not.																								
18.	Write a C Program to Find Length of given String.																								
19.	Write a C Program to Concatenate two Strings by using Strcat().																								
20.	Write a C Program to Compare two given Strings.																								
21.	Write a C Function for the following task a. Calculating Factorial b. Find value of a given Fibonacci Term c. Swapping the Values of Two Variable																								
22.	Write the following Recursive C Function a. Factorial of a given Number b. Nth Fibonacci Number																								



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Syllabus

PGDCA – Semester I

PGDCA - P107 – CORE COURSE VII – PROJECT PHASE-1ST (ANALYSIS & DESIGN PART)

MAX. MARKS: 50

MIN. PASS MARKS: 20

No. of Laboratory per week: 04 per Hour

Total Lectures: 64

The Students have to prepare a Project Report (Phase I) under the guidance of respective faculty.

PGDCA – 108 (SKEG) – SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC) –

SKEG- T-103 – COMMUNICATIVE ENGLISH

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week: 03 Hours

Total Lectures: 48

SKEG- T-119 – PERSONALITY DEVELOPMENT

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week: 03 Hours

Total Lectures: 48

SKEG-T107 – FUNDAMENTAL OF BANKING & INSURANCE

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week : 03 Hours

Total Lectures: 48

SKEG-T108 – HEALTH EDUCATION

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week : 03 Hours

Total Lectures: 48



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2022-23

Syllabus

PGDCA – Semester II

PGDCA – T201 – CORE COURSE I – WEB DESIGNING

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 04 Hours

Total Lectures: 64

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	12 Lectures
Webpage, Websites, HTML: HTML Tags Related to: Text, List, Tables, Frames Hyperlink, Multimedia, Style Sheets.	
Unit-II	12 Lectures
HTML: Event Handling, Meta, DIV & SPAN tags, DOM, DHTML (without scripting language), Introduction to XML with examples.	
Unit-III	14 Lectures
Java Script: Data types, Operators, Keywords, Control Structures and Loops, Arrays Inbuilt Functions and their types	
Unit-IV	14 Lectures
Java Script: User defined functions, calling function by HTML, Object properties & Methods, Hidden Fields & Cookies, Design a Website with dynamic Web Pages.	
Unit-V	12 Lectures
Client-Server Computing, Distributed Computing, Introduction to ASP, JSP, CGI, PERL, WML, WAP.	

BOOKS:

1. HTML in 24 Hours, Tech Media
 2. Programming in Web Designing By V.Jain
 3. Web Designing, Kamal Prakashan
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2022-23

Syllabus *PGDCA – Semester II*

PGDCA – T202 – CORE COURSE II – VISUAL BASIC PROGRAMMING

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 04 Hours

Total Lectures: 64

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	12 Lectures
Introduction: Concept of Front End, Back End, GUI, About VB. Basics of VB: New project window, VB Project, IDE, different Components of IDE: Project Explorer, Property Window, Tool Box, Form Layout Window, Object Browser: Tool Box, Menu Editor, Images List, Form Design Run time & Design Time Properties. Menus: File menu, Format Menu, Help Menu.	
Unit-II	14 Lectures
Token's: Variables, Constants, Data Types. Statements: Control Statements, Coding Statements & Style i.e. E.D.P. Different Types of Procedure's. Input/Output Statements: (MsgBox) and (Input Box) Array's, Collection and Types. Programming with Object / Controls. Error handling: Types of Errors, Exception, Methods & Functions.	
Unit-III	12 Lectures
Graphics & Multimedia: Functions, Command's, Method's to implement Graphics and Multimedia Features in the Application. Activex Components: basic Activex Components, Advance Active Components, Text Formatting Properties. Timer Control, Mouse Pointer & Cursors, Control Array, Multiple Document Interface. Implementation of VB Functions.	
Unit-IV	14 Lectures
Database Programming with VB: Connectivity, Connectivity Tools: Data Control, ADODC, ADODB, Data Environment, Connection Type, Data Bound Controls: single value, Multi-value, Multi-Column. Report: Introduction to Report, Types of Reports, Reports in VB, Grouping, Use of SQL, Executing SQL.	
Unit-V	12 Lectures
Text Files: Types of Files in VB. Modes of Files, Different File Operation's Scripting Control & File System Object Moving, Updating, and Deleting from file. Introduction to VB Script, ASP and Window Programming.	

BOOKS:

1. Mastering Visual Basic by Evangles Petroustos, BPB Publication
 2. Basics of visual Basic by Kamal Prakashan
 3. Beginning Visual Basic by Peter Wright, Shroff publishes
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Syllabus

PGDCA – Semester II

PGDCA – T203 – CORE COURSE III – RDBMS USING ORACLE

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 03 Hours

Total Lectures: 48

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	08 Lectures
DBMS: Definition, Schemas, Instance, Catalog, Meta-Data, Three-Levels. Different users, Architecture. Model: Different Features, Advantages & Disadvantages of Network, Hierarchical, Relational & Object-Oriented Models.	
Unit-II	10 Lectures
ER Model: Types of Attributes, Entity, Entity sets, Symbols, Keys, Mapping, Degree of Relationship, Generalization, Specialization, Aggregation, Conversion of ER Schema into Relational Schema.	
Unit-III	10 Lectures
Normalization: Multivalued, Attributes, Functional Dependency & INF Transitive dependency and 3NF, BCNF (3 ¹ / ₂ NF), MVD & 4NF, JD & 5NF.	
Unit-IV	10 Lectures
SQL(Using ORACLE): Query Languages: SQL, QUEL & QBE with Practical Example, DDL, DML & DCL Commands, Types of Oracle Join, Types of Functions.	
Unit-V	10 Lectures
SQL*PLUS Different Types of SELECT, Data Constraints, Primary Key, Foreign Key, NULL, UNIQUE, CHECK, Subqueries, View, Index, Sequence, Granting & Revoking Permissions.	

BOOKS:

1. Database Management System by Hoffer
 2. ORACLE 8i by Ivon Bayross
 3. The ORACLE Complete by Oracle Press
 4. Concepts of Database Management System by Kamal Prakashan
 5. Database Management System by C. J. DATE
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Syllabus

PGDCA – Semester II

PGDCA – T204 – CORE COURSE IV – COMPUTER NETWORKING

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 03 Hours

Total Lectures: 48

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	10 Lectures
Communication and its Types: Analog & Digital, Synchronous & Asynchronous, Connection Oriented and Connection less, Serial and parallel. Wire and Wireless. OSI Model: Features, Functions protocols of Different layers, Transmission media: Bounded & Unbounded with their Types.	
Unit-II	10 Lectures
LAN, MAN & WAN: Features, advantages & Disadvantages. Network Topologies: Features, advantages & Disadvantages of BUS, RING, STAR, TREE, MESH. Network Architecture: Ethernet, Token Bus, Token Ring, FDDI, ARC Net.	
Unit-III	10 Lectures
Network Layer Function: IP Addressing & Sub netting, switching packet formation (Datagram & Virtual circuit). Routing Algorithms: Static and dynamic like: Shortest path, flooding, flow based, DVM, LSR.	
Unit-IV	10 Lectures
Data Link and transport layer: Error detection and correction: LRC, VRC, CRC, Checksum, Hamming Code, Character oriented and bit oriented protocols (HDLC), Line discipline, Flow control, Similarities & Difference between DATA Link and Transport Layer.	
Unit-V	08 Lectures
TCP/IP Protocol suite: TCP,IP,ARP,RARP,BGP,UDP,ICMP,DNC,RIP,OSPFFTP, SMTP, NFS, TELNET, DHCP, WINS, IPX/SPX Protocol Suite. Apple Talk Protocol suite.	

BOOKS:

1. Computer Networks by Stallings
 2. Computer Networks by Tanenbaum
 3. Data Network and Communication by Miller
 4. Computer Networks by Kamal Prakashan
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Syllabus

PGDCA – Semester II

PGDCA – T205 – CORE COURSE V – INTERNET & E-COMMERCE

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per Week: 03 Hours

Total Lectures: 48

The Question Paper will contain questions equally distributed in all Units. The Internal Choice will be given in all Questions.

Unit-I	08 Lectures
Internet, Intranet, Extranet: Features, Advantages & Disadvantages. Connectivity Devices: MODEM, Repeater, Hub, Bridge, Router, Switch, Gateway, Their working & types.	
Unit-II	10 Lectures
History and Architecture of Internet, Types of Internet A/Cs. Internet Addressing: IP Address, Domain Name, Emails and URL. ISP/IAP: Types, Criteria For Selection, Facts gather from ISP, Online Services.	
Unit-III	10 Lectures
www, W3C, HTTP, FTP, SMTP, POP3, Websites, Internet Relay Chat. E-Mail: Working, Composing, Attachment, Smileys, Netiquette, Microsoft Outlook: Menus & Features.	
Unit-IV	10 Lectures
Web Browser: Internet Explorer, Netscape Navigator, Web Server, Proxy Server, Internet viruses, Internet security, Firewall, Encryption, Decryption, Digital signature, digital certificate, Search engines.	
Unit-V	10 Lectures
E-Commerce & M-Commerce: Types of E-Commerce, Functions, technologies: EDI, PDE, Bar Code etc. E-Business, Difference between E-Commerce & E-Business. Advantages & Disadvantages of E-Commerce and M-Commerce.	

BOOKS:

1. Internet for Dummies- Pustak Mahal New Delhi
 2. Internet and Web technology-Kamal Prakashan
 3. The Internet Complete Reference-TMH
 4. How The Internet Works by Preston Galla
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Syllabus

PGDCA – Semester II

PGDCA – P206 – CORE COURSE VI – PRACTICAL COURSE IN VB, HTML, ORACLE

MAX. MARKS: 50

MIN. PASS MARKS: 20

No. of Laboratory per week: 04 per Hour

Total Lectures: 64

The Students have to prepare a list of minimum 50 programs which are simple, advanced and mathematical under the guidance of respective faculty.

PGDCA – P207 – CORE COURSE VII – PROJECT PHASE-2ND (CODING & IMPLEMENTATION PART)

MAX. MARKS: 50

MIN. PASS MARKS: 20

No. of Laboratory per week: 04 per Hour

Total Lectures: 64

The Students have to prepare a Project Report (Phase II) under the guidance of respective faculty.

PGDCA – 108 (SKEG) – SKILL ENHANCEMENT / GENERIC COURSE - ANY ONE (SEC / GC) –

SKEG-P102 – BASIC COMPUTERIZED ACCOUNTING (PRACTICAL COURSE)

MAX. MARKS: 100

MIN. PASS MARKS: 40

No. of Laboratory per week: 08 Hours

Total Lectures: 128

SKEG- T-119 – PERSONALITY DEVELOPMENT

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week: 03 Hours

Total Lectures: 48

SKEG-T116 – MANAGERIAL SKILLS

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week : 03 Hours

Total Lectures: 48

SKEG-T108 – HEALTH EDUCATION

MAX. MARKS: 70 + 30

MIN. PASS MARKS: 28 + 12

No. of Lectures per week : 03 Hours

Total Lectures: 48
