હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી

NAAC B (2.21) State University

પો.બો.નં.–૨૧, યુનિવર્સિટી રોડ, પાટણ (ઉ.ગુ.) ૩૮૪૨૬૫

ફોનઃ(૦૨૭૬૬) ૨૩૭૦૦૦ ફેક્સ : (૦૨૭૬૬) ૨૩૧૯૧૭

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પરિપત્ર નં.- ૮૯ /૨૦૨૪ *રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦*

વિષયઃ મેનેજમેન્ટ વિદ્યાશાખા હેઠળના સ્નાતક કક્ષાના સેમેસ્ટર-૩ અને ૪ના શૈ. વર્ષઃ ૨૦૨૪-૨૫ થી ક્રમશઃ અમલમાં આવતા અભ્યાસક્રમ / પરિક્ષા સ્કીમ અંગે.

આ યુનિવર્સિટીની મેનેજમેન્ટ વિદ્યાશાખા હેઠળની તમામ કોલેજોના આચાર્યશ્રીઓને જણાવવાનું કે, મેનેજમેન્ટ વિદ્યાશાખાની તારીખઃ ૨૬/૦૩/૨૦૨૪ના રોજ મળેલ સભાના નિર્દિષ્ટ ઠરાવોથી રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦ અંતર્ગત UGCની Guideline મુજબ મેનેજમેન્ટ વિદ્યાશાખા હેઠળના નીચેના સ્નાતક કક્ષાના સામેલ પરિશિષ્ટ પ્રમાણેના નવા અભ્યાસક્રમો મંજુર કરવા કરેલ ભલામણ માન. કુલપતિશ્રીએ એકેડેમિક કાઉન્સિલવતી સ્વીકારી શૈક્ષણિક વર્ષઃ ૨૦૨૪-૨૫થી ક્રમશઃ અમલમાં આવે તે રીતે મંજુર કરેલ છે, જેનો અમલ કરવા સારૂ સબંધિતોને આ સાથે મોકલવામાં આવે છે.

ક્રમ	અભ્યાસક્રમ	ઠરાવ ક્રમાંક	સેમેસ્ટર
૧	કોમ્પ્યુટર સાયન્સ	૨	સેમેસ્ટર ૩ અને ૪
૨	બિઝનેશ એડમિનિસ્ટ્રેશન	૩	સેમેસ્ટર ૩ અને ૪

સદર બાબતની જાણ આપના સ્તરે થી અધ્યાપકશ્રીઓ તથા વિદ્યાર્થીઓને કરવા વિનંતી છે.

નોંધઃ (૧) વિદ્યાર્થીઓની જરૂરીયાત માટે પરીપત્રની એક નકલ કોલેજના / ડિપાર્ટમેન્ટના ગ્રંથાલયમાં મૂકવાની રહેશે.

(૨) આ પરીપત્ર યુનિવર્સિટીની વેબસાઇટ www.ngu.ac.in પર પણ ઉપલબ્ધ કરવામાં આવેલ છે. આથી સંબિધત કોલેજોને ડાઉનલોડ કરી ઉપયોગ કરવા સારૂ જણાવવામાં આવે છે.

કા. કુલસચિવ

બિડાણઃ ઉપર મુજબ

નં-એકે/અ×સ/૭૦૦ /૨૦૨૪

તારીખઃ૧૬/ ૦૫ /૨૦૨૪

પ્રતિ,

૧. ડીનશ્રી, મેનેજમેન્ટ સ્ટડીઝ વિદ્યાશાખા તરફ.
૨. મેનેજમેન્ટ સ્ટડીઝ વિદ્યાશાખા હેઠળની કોલેજોના આચાર્યશ્રીઓ તરફ
૩. પરીક્ષા નિયામકશ્રી, હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી પાટણ.
૪. ગ્રંથપાલશ્રી, હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી પાટણ.(વિદ્યાર્થીઓના ઉપયોગ સારૂ રેકર્ડ ફાઇલ અર્થે)
૫. માન.કુલપતિશ્રી/કુલસચિવશ્રીનું કાર્યાલય હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી પાટણ.
૬. સિસ્ટમ એનાલીસ્ટશ્રી, કોમ્પ્યુટર (રીઝલ્ટ સેન્ટર) હેમ.ઉ.ગુ.યુનિવર્સિટી, પાટણ.(વેબસાઇટ પર મુકવા સારૂ)
૭. પ્રવેશ પ્ર-શાખા, હેમ.ઉ.ગુ.યુનિવર્સિટી, પાટણ
૮. મહેકમ શાખા, હેમ.ઉ.ગુ.યુનિવર્સિટી, પાટણ.(૨ નકલ)

NATIONAL EDUCATION POLICY - 2020 (NEP-2020)

w. e. f. June 2024

Model Curriculum Structure for

Bachelor of Computer Applications (BCA) Programme (Semester 3 and 4)

Submitted to

Hemchandracharya North Gujarat University, Patan.

Preface

Greetings from NEP 2020 Computer Science Syllabus Framing Committee!

We extend our heartfelt gratitude to the university for initiating the implementation of NEP-2020. It is an honor for us to be part of the process through the Board of Studies for Computer Science.

Our committee, tasked with framing the syllabus for semester 3 and 4 for BCA Programme, has diligently conducted various offline and online meetings to discuss and finalize the curriculum. These deliberations have not only shaped the syllabus for BCA but also defined the Programme and Course outcomes. A model draft curriculum structure for BCA Program's 3rd and 4th semesters was presented virtually during the committee meeting on 5th December 2023. The valuable inputs received during this session are being carefully considered for further revisions.

We are fully committed to completing the remaining portion of the BCA Program syllabus and will continue to work diligently to meet all academic requirements for the successful implementation of the curriculum in alignment with the principles of NEP-2020.

Sincerely,

Dr. Namrata Gupta
(namratag_gupta@yahoo.com)
Chairperson, Board of Studies in Computer Science, HNGU, Patan.
Principal,
Smt. B. K. Mehta I.T. Center (B.C.A.) College,
Palanpur.

Member of Board of Studies (Computer Science)

S. No.	Member's Name	Designation
1	**Dr. Namrata Gupta** Principal, Smt. B. K. Mehta I.T. Center (B.C.A.) College, Palanpur.	Chairperson
2	**Dr. Jaydeep Trivedi** Principal, Matrushri L.J.Gandhi B.C.A College, Modasa.	Member
3	**Mr. Natvar Patel** Asst. Professor, Smt. B. K. Mehta I.T. Center (B.C.A.) College, Palanpur.	Member
4	**Mr. Jayram Suthar** Asst. Professr, Shree R. K. Patel BCA College, Nani Kadi.	Member
5	**Dr. Bhavesh Patel** I/C Head , Department of Computer Science, Hemchandracharya North Gujarat University, Patan.	Member
6	**Mr. Nirav Thakkar** Asst. Professor, Shri Sarvajanik BCA And PGDCA College, Mehsana.	Member (Invitee)

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

"Accredited By NAAC with 'A' Grade (CGPA 3.02)"

Bachelor of Computer Application (BCA)

w. e. f. June 2024 under NEP 2020

SEMESTER - IV

COURSE TYPE	COURSE CODE	COURSE TITLE	CREDIT	WORK HOUR / WEEK		EXAM HOUR	TOTAL MARKS	
				TH	PR		TH	PR
Discipline Specific Course (MAJOR)	MS23MJDSCBCA401	Python Programing	4	4	-	2	100	-
Discipline Specific Course (MAJOR)	MS23MJDSCBCA401A	Web Development Using PHP	4	4	-	2	100	-
Discipline Specific Course (MAJOR)	MS23PMJDSCBCA401B	**PRACTICAL** – Python Programing	2	-	4	2	-	50
Discipline Specific Course (MAJOR)	MS23PMJDSCBCA401C	**PRACTICAL** – PHP	2	-	4	2	-	50
Minor Stream Course	MS23MIDSCBCA402	System Analysis and Design	4	4	-	2	100	-
Ability Enhancement Course	MS23AECBCA404	Personality Development & Reasoning Ability	2	2	-	1	50	-
Value Added Course	MS23VACBCA405	Integrated Personality Development Course-II	2	2	-	1	50	-
Skill Enhancement Course	MS23SECBCA406	Computer Security - II	2	2	-	1	50	-
Total			**22**	**26**			**550**	

Examination and Passing Criteria

- **Internal Examination Marks Ratio: 50% of Total Marks.**
- **External Examination Marks Ratio: 50% of Total Marks.**
- **Passing Marks: 40% Marks in Internal as well as External Examination.**

Evaluation System

The Evaluation System Consist of two components:

1. **Continuous and comprehensive Evaluation (CCE) Formative (Internal)**
2. **Semester End Evaluation (SEE) – Summative (External)**

In, each course 50% marks is assign to CEE and rest of 50 % marks is Assign to SEE.

Continuous and comprehensive Evaluation (CCE):

- The 50% marks assign to CEE is distributed between the continuous classroom evaluation and mid-term evaluation.
- Subject-wise CCE will be undertaken by the concerned faculty member. The mode of evaluation will be decided by the faculty member concerned with the subject.
- Normally CCE consists of **class participation**, **case analysis and presentation**, **assignment**, **tutorials, slip tests (announced/surprised), quizzes, attendance etc. or any combination of these.**
- The students are expected to submit their answer scripts/ reports of internal evaluation within the stipulated time. Failure to do so may result in the script not being valued.
- Another part of **CCE consists of mid-term written evaluation**, **which is compulsory for all students**. It can be done in a scheduled manner. The duration of the mid-term evaluation shall be one hour.

- Based on the types of evaluation, various models of evaluation implementation are suggested for theory, practical, self-study and work-based learning. The focus of these models is to encourage the students to improve on skills and performance.

Examination Pattern	**Marks**
Class Test (best 2 out of 3)	15
Quiz (Best 3 out of 4)	15
Active Learning	05
Class Assignment	05
Home Assignment	05
Attendance	05

Semester End Evaluation (SEE):

- The SEE carries 50% of the marks assigned to a course.
- SEE shall be of 2 hours for 4 credit course and 1 hour in case of 2 credit courses.
- The controller of the examination will conduct these examinations.
- Paper setting and evaluation will be done by the external examiners to an extent of 50% of the evaluation process.
- This examination shall be conducted as per a schedule which shall be notified in advance.
- The backlog exam will be conducted twice a year just after the result declared of the semester evaluation. Students shall have a second chance to clear their backlog and avoid the burden to carry forward the backlog with the next semester exam.

Eligibility Criteria to appear in SEE:

1. Should have at least 75% of attendance in all the courses put together
2. Should have at least 70% of attendance in each course/subject
3. Should not have any disciplinary proceedings pending against him/her
4. Should have no pending due

Exit Options

1. After II Semester - Exit option with Certificate in Computer Applications.
   (With a minimum of 44 + 4 credits of Summer Internship)
2. After IV Semester - Exit option with Diploma in Computer Applications.
   (With a minimum of 88 + 4 credits of Summer Internship)
3. After VI Semester - Exit Option with Bachelor of Computer Applications Degree, BCA Degree.
   (With a minimum of 132 credits)
4. After VIII Semester - Award of Bachelor of Computer Applications Hons Degree, BCA (Hons.) Degree.
   (With 176 credits)

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23MJDSCBCA401	**Course Title:** Python Programming
Course Credits: 04	**Hours/Week:** 04
Exam Duration: 2 Hours	**Course Type:** Discipline Specific Course (MAJOR).
Internal Exam Marks: 50	**External Exam Marks:** 50

Course Outcome:

After Completion of course,

- Students Develop versatile applications using Python for diverse programming needs.
- Implement effective data handling and manipulation using Python's libraries.
- Apply secure coding practices and understand best practices for Python programming.
- Master Python's capabilities for creating interactive and efficient software solutions.

Total Teaching Hour: 40		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**Beginning with Python:** Operators, I/O and Control statements Python, Features of Python, History of Python, Python Virtual Machine, Memory Management in Python, Garbage collection in python, Comparisons between C-Java-Python, writing first Python program, Python variable **Data types in Python:** Built-in data types, Numeric types, Explicit conversion of data types, Sequences Types: List, Tuple, range, set data type, frozen set, mapping types, Boolean types, Binary Types, Determining the data type of a variable **Operators:** Arithmetic operations, logical operators	25%
Unit - II	**Control statements:** Conditional Statement. If Statement, If Else statement, Comprehension statement (multiple conditions). **Looping:** for loop, while loop **Arrays:** Advantages of Array, Creating an Array, looping array, Importing the array module, Slicing and Processing the arrays, **Functions:** Defining-calling and returning(single and multiple) results from a function, Pass by Object Reference, Positional arguments, Keyword arguments, Default arguments, Variable length arguments, Inbuilt Functions and Methods List, Python Lambda **Modules:** Creating our own modules in python.	25%
Unit - III	**List and Tuples:** Exploring List, Loop Lists, List Comprehension, Join Two Lists, Updating the elements of the list, Tuples, Creating and accessing Tuple elements, Basic operations on Tuples, **File:** Create, reading, writing, deleting **Classes:** Creation of class and object, The __init__() function, Self parameter, Modifying the property of a class **Inheritance & Encapsulation, Polymorphism.**	25%

Unit - IV	**Exception Handling, Standard Library and Python Database connectivity** Exceptions, Exception handling, Types of exceptions, String Formatting, File wildcards, Command line arguments, Python RegEx, Python and MySQL: Installing MySQL Driver, Verifying the Connector Installation, Using MySQL from Python **Database Operations:** Retrieving all rows from a table, Inserting rows into a table, Deleting rows from table, Updating rows in a table, Creating database tables through Python.	25%

Text & Reference Books:

1. A Byte of Python, By Swaroop C H
2. Python Cookbook, Recipes of Mastering Python 3, By David Beazely & Brian K. Jones
3. Core Python Programming By, Dr. R. Nageswara Rao, 2018 edition

Web – References:

https://www.w3schools.com/

University Question Paper Scheme			
Q.1	Unit-I	Descriptive/ Long questions with choice	10 Marks
Q.2	Unit-II	Descriptive/ Long questions with choice	10 Marks
Q.3	Unit-III	Descriptive/ Long questions with choice	10 Marks
Q.4	Unit-IV	Descriptive/ Long questions with choice	10 Marks
Q.5	All Unit	Objective / Short Question / True –False etc.	10 Marks

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23MJDSCBCA401A	**Course Title:** Web Development Using PHP
Course Credits: 04	**Hours/Week:** 04
Exam Duration: 2 Hours	**Course Type:** Discipline Specific Course (MAJOR).
Internal Exam Marks: 50	**External Exam Marks:** 50

Course Outcome:

After Completion of course, Students able to,

- Develop dynamic web applications using PHP's server-side scripting.
- Integrate and manage databases effectively for data-driven solutions.
- Implement secure coding practices to ensure robust web application security.
- Apply PHP for interactive web development, mastering essential skills for versatile programming.

Total Teaching Hour: 40		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**Introduction:** Web-Technologies-Client-side scripting, Server-side scripting, Web-browser, Web – server, Client - Server Model. **Introduction to PHP:** History of PHP,PHP Features, Basic PHP Syntax, PHP Comments **PHP Variables :** Creating (Declaring) PHP Variables, Output Variables, PHP Variables Scope, PHP Constants **PHP echo and print Statements, PHP Data Types and Typecasting** **PHP Operators:** Arithmetic operators, Assignment operators, Comparison operators, Increment/Decrement operators, Logical operators, String operators, Conditional assignment operators, Bitwise operators, Operator Precedence and Associativity **PHP variable handling functions** **PHP Conditional statements:** if statement, if...else statement, if...else if....else statement. switch statement **PHP Loops and branching statements:** while, do...while, for, foreach, Break statement, Continue statement	25%
Unit - II	**PHP Arrays:** Create an Array in PHP, Types of Arrays: Indexed arrays, Associative arrays Multidimensional arrays, Storing Data, Assigning, Accessing Array Elements, Displaying with above array types, Array Related Functions **PHP Functions- User-defined functions:** Create a PHP Function, PHP Functions - Adding parameters, PHP Functions - Return values, Making arguments be passed by reference, Default argument values, Recursive Function **Miscellaneous Functions:** define, constant, include, require, header, die **PHP String Functions, PHP Date/Time Functions , PHP Math Functions** **PHP Global Variables (Super global)** **Working with Forms in PHP:** PHP Form handling -Accessing form data, use of Hidden fields to save State, PHP Form validating, PHP File upload, Redirecting user, PHP Sending E-mails	25%

Unit - III	**PHP OOPS CONCEPTS AND ADVANCE OOP** Classes and Objects, Define a Class, Define Objects, Constructor, Destructor, Access Modifiers, Inheritance, The final Keyword, Class Constants, Abstract Classes and methods, Interfaces, Static Methods and static properties **PHP File Handling** Opening a File, Closing a File, Check End-of-file, Reading a File Line by Line, Reading a File Character by Character, PHP File system Functions **PHP Error Handling** Types of Errors, Error Handling - Simple "die()" statements, Custom errors and error triggers **Error reporting**: PHP Error Reporting and Logging, Error-Reporting Functions (Debugging Techniques), PHP Exceptions, Throwing an Exception, The try...catch...finally Statement, The Exception Object	25%
Unit - IV	**Database programming and PHP** **Introduction to MySQL**: Features, Merits and Demerits, MySQL data types and constraints, Working with Forms PHP and MySQL Integration – Basic SQL Commands (Insert, Update, Delete, Select) **PHP Connect to MySQL :** MySQLi extension **MySQL functions** mysqli_connect(), mysqli_select_db(), mysqli_query() mysqli_num_rows(), mysqli_fetch_array(), mysqli_fetch_field(), mysqli_fetch_row(), mysqli_connect_error(), mysqli_affected_rows(), mysqli_error(), mysqli_free_result(), mysqli_close() **Working with Cookies and User Session** Introduction of Cookie, Setting a Cookie with PHP, Introduction of Session and Improving Session Security, Starting a Session, Working with Session Variables, Passing Session Id in the query String, Destroying Session and Unsetting Variables. **Web Services** Web Services - working , Web Services Platform Elements ,Web Services Model, Artifacts of a Web Service	25%

Text & Reference Books:

1. PHP 5 And MYSQL- Bible Publication
2. Beginning PHP And MYSQL-By W. Jason Gilmore,Apress
3. Learning PHP,MySQL,Javascript, And CSS, Second Edition by Robin Nixon
4. The Complete Reference PHP By Steven Holzner
5. Julie C. Meloni,PHP MySQL And Apache, SAMS Teach Yourself ,Pearson Education
6. Programming PHP by Rasmus Lerdorf,Kevin Tatroe,Peter Maclntyre.
7. Joomla:Bible,Wiley India Pvt.Ltd.-Ric Shreves

Web – References:

https://www.w3schools.com/

University Question Paper Scheme			
Q.1	Unit-I	Descriptive/ Long questions with choice	10 Marks
Q.2	Unit-II	Descriptive/ Long questions with choice	10 Marks
Q.3	Unit-III	Descriptive/ Long questions with choice	10 Marks
Q.4	Unit-IV	Descriptive/ Long questions with choice	10 Marks
Q.5	All Unit	Objective / Short Question / True –False etc.	10 Marks

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23PMJDSCBCA401B	**Course Title:** Practical – PYTHON Programming
Course Credits: 02	**Hours/Week:** 04
Exam Duration: 2 Hours	**Course Type:** Discipline Specific Course (MAJOR).
Internal Exam Marks: 25	**External Exam Marks:** 25

Total Teaching Hour: 40

Practical List

1. Write a Python program to display 'Hello World" Message on Screen.
2. Write a Python program to swap two variables using a temporary variable
3. Write a program to swap two numbers without taking a temporary variable.
4. Write a program to find out and display the common and the non-common elements in the list using membership operators
5. Create a program to display memory locations of two variables using id() function, and then use identity operators two compare whether two objects are same or not.
6. Write a Python Program to find area of circle.
7. Write a Python Program to create a sequence of numbers using range data type to display 1 to 30, with an increment of 2
8. Write a Python program to implement Factorial series up to user entered number
9. Write a Python program to display the Fibonacci series
10. Write a Python program to calculate sum of digit of given number.
11. Write a Python program to check the given number is palindrome or not.
12. Write a Python Program to print first 10 prime number.
13. Write a program to search an element in the list using for loop and also demonstrate the use of “else” with for loop.
14. Write a Python Program to Check Armstrong Number
15. Write a program to create one array from another array
16. Write a program to understand various methods of array class mentioned: append, insert, remove, pop, index, tolist and count.
17. Write a python program to display ascending and descending order from given 10 numbers
18. Write a Python program to print the duplicate elements of an array
19. Write Python programs to create functions and use it.
20. Write a program to pass a list to a function and display it.
21. Write a program to demonstrate the use of Positional argument, keyword argument and default arguments.
22. Write a program to show variable length argument and its use.
23. Write Python programs to using lambda function

24. Write Python programs loading the module in Python code
25. Write a program to print following pattern

    1

    1 2

    1 2 3

    1 2 3 4

    1 2 3 4 5
26. Write Python programs to implement a concept of list
27. Write a python program that removes any repeated items from a list so that each item appears at most once. For instance, the list [1,1,2,3,4,3,0,0] would become [1,2,3,4,0].
28. Write Python programs to implement a concept of tuples
29. Write a program to accept elements in the form of a tuple and display its minimum, maximum, sum and average.
30. Write a Python program to create nested list and display its elements
31. Create a sample list of 7 elements and implement the List methods mentioned: append, insert, copy, extend, count, remove, pop, sort, reverse and clear.
32. Write a program to implement single inheritance.
33. Write a Python program to using multiple inheritances
34. Write a program to access the base class constructor from a sub class by using super() method and also without using super() method.
35. Write a Python program to read a file bca.txt and print the contents of file along with number of vowels present in it.
36. Create a program name “employee.py” and implement the functions DA, HRA, PF, and ITAX. Create another program that uses the function of employee module and calculates gross and net salaries of an employee
37. Write a Python program for Error Handling
38. Write a Python program for connection with my Sql and display all record from the database
39. Write a Python program for modified record, display record and delete record from the database.
40. Write a Python program for search record from the database

University Practical Examination Scheme:
Examination Duration: **2 Hours (Per Batch)**
Practical Marks: **10** Viva Marks: **10** Journal Marks: **5**

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23PMJDSCBCA401C	**Course Title**: Practical – PHP
Course Credits: 02	**Hours/Week:** 04
Exam Duration: 2 Hours	**Course Type:** Discipline Specific Course (MAJOR).
Internal Exam Marks: 25	**External Exam Marks:** 25

Total Teaching Hour: 40

Practical List

1. Write a PHP program to display 'Hello World" Message on Screen.
2. Write a PHP program which work on the global Keyword.
3. Write a PHP program to prepare student Mark sheet using Switch statement.
4. Write a PHP program to calculate sum of given number.
5. Write a PHP program for check given number is prime or not.
6. Write a PHP program for check given number is Armstrong number or not.
7. Write a PHP program to display the Fibonacci series.
8. Write a PHP program to demonstrate the use of array functions.
9. Write a PHP program to generate the multiplication of matrix.
10. Write a PHP program to demonstrate variable handling functions.
11. Write a PHP program which has usage of string built-in functions.
12. Write a PHP program which has usage of Date/Time built-in functions.
13. Write a PHP program using file handling built-in functions.
14. Write a PHP program for crate a user define function.
15. Write a PHP program to display factorial using recursion.
16. Write a PHP program for print variable value into text box.
17. Write a PHP Program that will use the concept form. Using get method.
18. Write a PHP program to read the employee detail using form component. Using post method.
19. Write a PHP Program to Validate Input Data.
20. Write a PHP program to send Mail from PHP Script.
21. Write a PHP Program to Upload File.
22. Write a PHP program for Error Handling.
23. Write a PHP Program for Session and Cookies.
24. Write PHP program to create simple Login and Logout using sessions.
25. Write a PHP program for connection with mysql.
26. Write a PHP program for add record into database.
27. Write a PHP program for search record from the database.
28. Write a PHP program for delete, update record from the database.
29. Write a PHP program for display all record from the database.
30. Write a program to create CSS and implement with PHP form using include function and to

perform following operations.

I. Registration of user.

ii. login of user

iii. validation for above operations

University Practical Examination Scheme:

Examination Duration: **2 Hours (Per Batch)**

Practical Marks: **10** Viva Marks: **10** Journal Marks: **5**

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23MIDSCBCA402	**Course Title:** System Analysis and Design
Course Credits: 04	**Hours/Week:** 04
Exam Duration: 2 Hours	**Course Type:** Minor Stream Course
Internal Exam Marks: 50	**External Exam Marks:** 50

Course Outcome:

After Completion of course, Students able to,

- Acquire a comprehensive understanding of the principles, methodologies, and tools essential for analyzing and designing efficient information systems.
- Demonstrate proficiency in creating system requirements, designing effective solutions, and employing industry-standard modeling techniques.
- Equipped to apply systematic approaches in developing robust and scalable information systems to address real-world business challenges.

Total Teaching Hour: 40		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**System Concepts and Methodology:** **System Analysis Fundaments:** Introduction to System, System Analysis and Design, Need for System Analysis and Design, Types of System, Role of the System Analyst. **System Development Strategies:** SDLC, Difference b/w System Analysis and System Design. Need for Structured Analysis and Design, Structured Analysis Development Method (SSADM), System Prototype Method (SPM).	25%
Unit - II	**System Tools and Techniques:** **Fact-Fining Techniques**: Interview, Questionnaire, Record Review, Observation. **System Flowchart:** Type of System Flowchart, Principles of Flowchart **Data Flow Diagram:** Advantages, Symbols Used in DFD, Rules of DFD, Physical and Logical DFD **Data Dictionary:** Importance and detail **Structured Decisions:** Decision Tree, Decision Tables, Structured English.	25%
Unit - III	**System Design:** **Code Design**: Objectives, Principles of Code Design, Types of Codes. **Form Design:** Objectives, Types of Forms, Guidelines for Form design, Form Design Steps.	25%

	Input Design: Objectives, Data Capture, Data Validation. **Output Design:** Objectives, Principle of Output, Types of Output, Output Media **System Implementation and Testing:** Training, Conversion, Documentation, Need for Documentation, Level of Testing, Testing Principles, Testing Process, White Box Testing, And Black Box Testing.	
Unit - IV	**Case Studies:** (Context Level DFD, First Level DFD and Second Level DFD) ○ Stock (Inventory) Management System. ○ Hotel Management System. ○ Library Management System ○ Online Examination System ○ Online Shopping System ○ Accounting System ○ Payroll System	25%

Text & Reference Books:

1. System Analysis, Design and Introduction to Software engineering , 10th Edition, - S.Parthasarthy &B.W.Khalkar, MasterAcademy
2. Analysis and Design of Information Systems - James A. Senn-TMH
3. Introduction to S.A.D. by LEE VOL. 1 & 2 Galgotia Publication

University Question Paper Scheme			
Q.1	Unit-I	Descriptive/ Long questions with choice	10 Marks
Q.2	Unit-II	Descriptive/ Long questions with choice	10 Marks
Q.3	Unit-III	Descriptive/ Long questions with choice	10 Marks
Q.4	Unit-IV	Descriptive/ Long questions with choice	10 Marks
Q.5	All Unit	Objective / Short Question / True –False etc.	10 Marks

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23AECBCA404	**Course Title:** Personality Development & Reasoning Ability
Course Credits: 02	**Hours/Week:** 02
Exam Duration: 1 Hours	**Course Type:** Ability Enhancement Course (AEC)
Internal Exam Marks: 25	**External Exam Marks:** 25

Course Outcome:

After completion of course students able to,

- Master diverse written communication formats such as minutes, memos, resumes, and emails, fostering effective professional communication skills.
- Develop practical competencies through mock interviews, group discussions, and classroom teaching, enhancing their attitude, teamwork, and leadership abilities.
- Demonstrate proficiency in verbal reasoning, encompassing series, relations, coding-decoding, syllogism, and problem-solving strategies.

Total Teaching Hour: 30		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**Business Communication –Writing Skills** 1. Minutes 2. Memo 3. Resume, CV 4. Memorandum 5. Notice 6. E-Mail 7. Agenda 8. Proposal 9. Report **[Practical Aspects of the Course]** • Mock Interview • Group Discussion • Class Room Teaching • Attitude Building • Team Leadership	50%
Unit - II	**Verbal Reasoning Ability** 1. Letter & Number Series 2. Blood Relation 3. Distance - Direction 4. Coding – Decoding 5. Syllogism 6. Puzzle & Seating Arrangement	50%

Text & Reference Books:

1. Developing Communication Skills By Kishan Mohan & Meena Benarji –Mac Millan Publication
2. Business Communication By Minakshi Raman & Prakash Singh – OXFORD Higher Education
3. Comprehension, Precis and Paragraph Writing By Dr. Shakti Batra –M B D international

4.Your Interview By K.L.Kumar - S. Chand Publication

5.A Modern Approach To Logical Reasoning by Dr. R. S. Aggrawal – S. Chand Publication

6.How to crack TEST OF REASONING By Jaikishan and Premkishan –Arihant Publication

7.A Modern approach to Verbal & Non Verbal Reasoning – By R.S. Aggrawal - S. Chand Publication

University Question Paper Scheme			
Q.1	UNIT-I	Descriptive/ Long questions with choice	10 Marks
Q.2	UNIT-II	Descriptive/ Long questions with choice	10 Marks
Q.3	All Unit	Objective / Short Question / True –False etc.	5 Marks

Semester: IV	**Program Code:MGTUG201**
Course Code: MS23VACBCA405	**Course Title:** Integrated Personality Development Course - II
Course Credits: 02	**Hours/Week:** 02
Exam Duration: 1 Hours	**Course Type:** Value Added Course (VAC)
Internal Exam Marks: 25	**External Exam Marks:** 25

Course Outcome:

After completion of course students able to,

- Gain holistic value-based education that will enable them to succeed academically, professionally, and socially.
- Become self-aware, sincere, and successful in their many roles – as ambitious students, reliable employees, caring family members, and contributing Indian citizens.

Total Teaching Hour: 30		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**Module: Remarking Yourself** **Subject: Begin with the End in Mind: (2 Hour)** Students will learn to visualize there future goals and will structure their lives through smart goals to give themselves direction and ultimately take them to where they want to go. **Subject: Being Addiction Free: (2 Hour)** Students will explore the detrimental effects of addictions on one's health, personal life, and family life. They will learn how to take control of their life by becoming addiction free. **Module: Selfless Service** **Subject: Case Study: Disaster Relief : (2 Hour)** Students will apply previous lessons of seva to analyse the case study of the Bhuj earthquake: relief work. **Module: Soft Skills Subject** **Subject: Teamwork & Harmony: (2 Hour)** Students will learn the six steps of teamwork and harmony that are essential for students': professional and daily life. **Module: My India My Pride** **Subject: Present Scenario: (2 Hour)** To implement the transformation of India from a developing country into a developed country it is necessary to have a value-based citizen Students will see how the transformation to a Greater India relies on the vision and efforts of Themselves as a youth. **Module: Learning from Legends** **Subject: Leading Without Leading : (2 Hour)** Students will explore a new approach to Leadership through humility.	50%

	Module: My India My Pride **Subject: An ideal Citizen -1: (2 Hour)** Students will learn that to become value-based citizens, they must first develop good values in their lives They start by exploring the values of responsibility and integrity **Subject: An ideal Citizen -2: (2 Hour)** Students will learn that by developing the values of loyalty, sincerity, and punctuality, they became indispensable and can leave a strong impression; They will start developing these values by trying to keep perfection in every small task and by looking at the bigger picture.	
Unit - II	**Subject: Facing Failures** Timeless Wisdom for Daily Life **: (2 Hour)** Students will learn the role wisdom plays in finding long-term stability. They will use ancient wisdom to solve their modern-day challenges. **Module: From House to Home** **Subject: Forgive & Forget : (2 Hour)** Students will understand the importance and benefits that forgiveness plays in their persona! And professional life. They will learn to apply this knowledge in realistic situations **Module: Remaking Yourself** **Subject: Stress Management: (2 Hour)** Students will learn to cope with current and future causes of stress. **Subject: Better Health Setter Future : (2 Hour)** A healthy body prevents disease and stress: increases positivity, productivity, and Brainpower. Students will learn to maintain good health through regular exercise, healthy eating habits, and regular and sufficient sleep. **Module: Learning from Legends** **Subject: Words of Wisdom: (2 Hour)** A panel of learned and experienced mentors will personally answer practical questions that students face in their daily life. **Module: Soft Skits** **Subject: Financial Planning: (2 Hour)** Students will develop a variety of practical financial skills that prepare them to become financially stable throughout their future careers. **Module: Remaking Yourself** **Subject: Impact of Company: (2 Hour)** Students will understand that the type of company that we keep has a crucial role in determining who we are and who we will become. They will develop the ability to create a positive environment around them. **Subject: Life After IPDC :(2 Hour)** This concluding lecture encourages students to keep practising these priceless lessons and prepares them for the next steps in their lives	50%

Text & Reference Books:

- IPDC Workbook – I

University Question Paper Scheme			
Q.1	UNIT-I	Descriptive/ Long questions with choice	10 Marks
Q.2	UNIT-II	Descriptive/ Long questions with choice	10 Marks
Q.3	All Unit	Objective / Short Question / True –False etc.	5 Marks

Semester: III	**Program Code:MGTUG201**
Course Code: MS23SECBCA406	**Course Title:** Computer Security - II
Course Credits: 02	**Hours/Week:** 02
Exam Duration: 1 Hours	**Course Type:** Skill Enhancement Course
Internal Exam Marks: 25	**External Exam Marks:** 25

Course Outcome:

After Completion of course Students able to,

- Apply practical knowledge of cyber security principles, including risk assessment, vulnerability analysis, and the deployment of effective countermeasures to safeguard computer systems and networks.
- Demonstrate proficiency in configuring and managing firewall systems to control and monitor network traffic, protecting against unauthorized access and potential security breaches.
- Analyze, identify, and mitigate the impact of various forms of malicious software, including viruses, worms, and ransom ware, through the use of antivirus tools and proactive security strategies.

Total Teaching Hour: 20		
Sr. No.	**PARTICULAR**	**MARKS**
Unit - I	**System Security-II:** Interception, Interruption, Modification & Fabrication Crackers & Career Criminals, Vulnerability & Abuses Transient vs Resident virus Control against threats Password Management	50%
Unit - II	**Cryptography:** Introduction to Cryptography Encryption and Decryption Plain Text and Cipher Text Types of cryptography, Cryptanalysis **Network Security:** - Protocols : Digital Signature Standards - Electronic Mail Security, MIME **Web Security :** -Secure Socket Layers (SSL) , -Secure Electronic Transactions (SET)	50%

Text & Reference Books:

1. Computer & Network Security, Gujarat Technical Publishers code. 3350704 Authors : Mr. Uresh Parmar, Prof. R.M. Shaikh, Dr. Paresh Kotak
2. Computer Security Basics by Debby Rusell, G.T. Gangemi (Orielly)
3. Network Security Private Communication in a Public world by Charlie Kamafman, Radia Parolman, Mike Speciner

University Question Paper Scheme			
Q.1	UNIT-I	Descriptive/ Long questions with choice	10 Marks
Q.2	UNIT-II	Descriptive/ Long questions with choice	10 Marks
Q.3	All Unit	Objective / Short Question / True –False etc.	5 Marks