F.Y.BBA-(CA) SEMESTER-I (NEP 2026)

COURSE STRUCTURE

Note: ***Click on the subject name or subject code to access the link to subject details.***

Sr. No	Particular	Subject Code	Credits	Page. No.
MAJOR CORE				
1	Basic C Language	26BA1-A101	4	2
2	DBMS	26BA1-A102	2	4
VSC - VOCATIONAL SKILL COURSE (Compulsory)				
3	SQL	26BA1-C103	2	6
IKS - INDIAN KNOWLEDGE SYSTEMS (Compulsory)				
4	Indian Knowledge System	26BA1-D104	2	7
GE/OE- GENERIC/OPEN ELECTIVE (Optional)				
5	Principles of Management	26BA1-G105	2	8
SEC - SKILL ENHANCEMENT COURSE (Compulsory)				
6	Lab based on Basic C Language & SQL	26BA1-H106	4	10
AEC - ABILITY ENHANCEMENT COURSE (Compulsory)				
7	English for Business Communication	26BA1-I107	2	30
VEC - VALUE EDUCATION COURSE (Compulsory)				
8	Environmental Studies Part - I	26BA1-J108	2	31
CC – Co-curricular Courses				
9	Sports Proficiency and Participation in Sports Competitions	26BA1-K116	2	33
10	National Cadet Corps - I	26BA1-K117		34
11	National Service Scheme I	26BA1-K118		35
12	Youth Red Cross I	26BA1-K119		36
13	Performing Arts (Cultural and Dramatics Association) I	26BA1-K120		37
Total Credits			**22**	

Course Code: 26BA1-A101	Subject: Basic 'C' Language	Marks: 100 Credits: 4

Course Objectives:

- To understand step-by-step analysis of the process of programming logic.
- To know the basic properties and syntax of C programming language.
- To understand input and output operation in C.
- To understand all decision-making statements in C Language.
- To understand concept of array and string in C Language

Course Outcome:

After completing the course, the student shall be able to

CO1: Ability to visualize the representation the input, output, decisions, and calculations that take place within a program.

CO2: Understand the history, operators and data types of C Language.

CO3: Basic knowledge of input, output operations and practical implementation in coding.

CO4: Practical knowledge of if-else statement and loops used in C Language.

CO5: Practical implementation of arrays, string and storage classes in c language and build programming skills.

Unit	Unit Title	Contents	No. of Lectures
I	Algorithm and Flowchart	1.1 Concept: Problem, Algorithm. 1.2 Characteristics of an algorithm. 1.3 Examples 1.3.1 Addition / Multiplication of integers 1.3.2 Determining if a number is +ve / -ve , even / odd 1.3.3 Maximum of 2 numbers, 3 numbers 1.3.4 Sum of first n numbers, sum of given n numbers, Sum of digits of a given number, sum of first and last digit of a Number. 1.4 Introduction of flow chart 1.5 Symbols of flowchart 1.6 Draw flowcharts for algorithms implemented in	10
II	Introduction to C language	2.1 History 2.2 Basic structure of C Programming 2.3 Language fundamentals 2.3.1 Character set, tokens 2.3.2 Keywords and identifiers 2.3.3 Variables and data types 2.4 Operators 2.4.1 Types of operators 2.4.2 Precedence and associativity 2.4.3 Expression	10
III	Managing I/O operations	3.1 Console based I/O and related built-in I/O functions 3.1.1 printf(), scanf() 3.1.2 getch(), getchar() 3.1.3 putch() and putchar()	7

		sscanf() and sprintf()	
IV	Decision Making and looping	4.1 Introduction 4.2 Decision making structure 4.2.1 If statement 4.2.2 If-else statement 4.2.3 Nested if-else statement 4.2.4 Conditional operator 4.2.5 Switch statement 4.3 Loop control structures 4.3.1 while loop 4.3.2 Do-while loop 4.3.3 For loop 4.3.4 Nested for loop 4.4 Jump statements 4.4.1 break 4.4.2 continue 4.4.3 goto 4.4.4 exit	13
V	Arrays and Strings	5.1 Introduction to one-dimensional Array 5.1.1 Definition 5.1.2 Declaration 5.1.3 Initialization 5.2 Introduction to two-dimensional Array 5.2.1 Definition 5.2.2 Declaration 5.2.3 Initialization 5.3Introductions to Strings 5.3.1 Definition 5.3.2 Declaration 5.3.3 Initialization 5.4 Standard library functions	10
Total No of Lectures+ Evaluation (50+10)			60 Hours

Course Code: 26BA1-A102	Subject: Database Management System	Marks: 50 Credits: 2

Course Objectives:

- To know the basic database concepts, applications, data models, schemas and instances.
- To understand the basics of data storage, data manipulation and data retrieval
- To familiarize with the concept of Relational Database Management system.

Course Outcome:

After completing the course, the student shall be able to

CO1: Apply the basic concepts of Database Systems and Applications.

CO2: Understand to implement the E R model and relational model

CO3: Learn to apply various Normalization techniques to use Relational Database Management System.

Unit	Unit Title	Contents	No. of Lectures
I	File Structure and Organization	1.1 Introduction 1.2 Logical and Physical Files 1.2.1 File 1.2.2 File Structure 1.2.3 Logical and Physical Files Definitions 1.3 Basic File Operations 1.3.1 Opening Files 1.3.2 Reading and Writing 1.3.3 Seeking 1.3.4 Closing Files 1.4 File Organization 1.4.1 Field and Record structure in file 1.4.2 Record Types 1.4.3 Types of file organization 1.4.3.1 Sequential 1.4.3.2 Indexed 1.4.3.3 Hashed 1.5 Indexing 1.5.1What is an Index? 1.5.2 When to use Indexes? 1.5.3 Types of Index 1.5.3.1 Dense Index 1.5.3.2 Sparse Index	6
II	Database Management System	2.1 Introduction 2.2 Basic Concept and Definitions 2.2.1 Data and Information 2.2.2 Data Vs Information 2.2.3 Data Dictionary 2.2.4 Data Item or Field 2.2.5 Record 2.3 Definition of DBMS 2.4 Applications of DBMS 2.5 File processing system Vs DBMS	14

		2.6 Advantages and Disadvantages of DBMS 2.7 Users of DBMS 2.7.1 Database Designers 2.7.2 Application programmer 2.7.3 Sophisticated Users 2.7.4 End Users 2.8 Views of Data 2.9 Data Models 2.10 Entity Relationship Diagram (ERD) 2.11Conversion of ERD into table design 2.12 Extended features of ERD	
III	Relational Database Design	3.1 Introduction 3.2 Anomalies of un normalized database 3.3 Normalization and Functional dependency 3.4 Normal Form 3.4.1 NF 3.4.2 NF 3.4.3 NF 3.4.4 BCNF	10
Total No of Lectures + Evaluation (50+10)			60 Hours

Course Code: 26BA1-C103	Subject: SQL (Structured Query Language)	Marks: 50 Credits: 2

Course Objectives:

1. To familiarize with the concept of Relational Database Management system.
2. To learn the basic database concepts, SQL Commands database creation
3. To learn the advance SQL queries using difference operators.

Course Outcome:

After completing the course, the student shall be able to

CO1: Apply the basic concepts of Database Systems and Applications.

CO2: Build a simple database system using different DML, DQL, DDL commands in SQL

CO3: Learn to apply advance SQL commands

Unit	Unit Title	Contents	No. of Lectures
I	Relational Model	1.1 Introduction 1.2 Terms: Relation, Tuple, Attribute, Cardinality, Degree of relationship set, Domain 1.3 Keys: Super Key, Candidate Key, Primary Key, Foreign Key 1.4 Relational Algebra Operations: Select, Project, Union, Difference, Intersection, Cartesian Product, Natural Join	10
II	Basics of SQL (Structured Query Language)	2.1 Introduction 2.2 History Of SQL 2.3 Basic Structure 2.4 DDL, DML, DQL, DCL commands - 2.4.1. Structure – creation, alteration, dropping, listing of tables 2.4.2. Insertion of Data, updating and deleting of Data 2.4.3. Defining constraints – Primary key, foreign key, unique, not null, check 2.4.4. Functions - aggregate functions 2.4.5. Built-in functions – numeric, date, string functions 2.4.6. Set operations	10
III	Advanced SQL (Structured Query Language)	3.1. Simple queries, Sub-queries, Nested queries 3.2. Use of group by, having and order by, 3.3. Use of Joins and its types 3.4. Transaction control commands – Commit, Rollback, Save point. (Students can use oracle SQL software for practices and Practical)	10
Total No of Lectures + Evaluation (50+10)			60 Hours

Course Code: 26BA1-D104	Course: Indian Knowledge System	Marks: 50 Credits: 2

Course Objectives:

1. To provide a foundational understanding of various Indian Knowledge Systems based on authentic textual resources.
2. To explore the historical context and evolution of these knowledge systems.
3. To highlight the relevance and application of Indian Knowledge Systems in contemporary society.
4. To develop critical thinking and analytical skills by examining primary and secondary sources.

Course Outcomes:

After completion of this course students will be able to;

1. Understand the fundamental concepts of Bharatiya Knowledge Systems (IKS) and their historical development.
2. Identify and explain key scriptures, philosophies, and traditions, such as the Vedas, Upanishads, epics, and schools of thought.
3. Apply knowledge of ancient Indian science, medicine, governance, and agriculture to recognize their influence and relevance in modern contexts.
4. Analyse aspects of India's civilisation and culture, including temple architecture, dynasties, and iconography, and explain their significance.

Unit	Unit Title	Contents
1	Introduction to Bharatiya Knowledge Systems (IKS)	Introduction to Bharatiya Knowledge Systems (IKS)
2	Bharatvarsh	Bharatvarsh, Geography of India
3	Vedas and Upnishad	i. Rigveda ii. Yajurveda iii. Samaveda iv. Atharveda v. Upnishad-s
4	Epic and Puranas	i. Ramayana ii. Mahabharata iii. Purana-s
5	Astika Philosophies, Buddhism, Jainism and Charvaca	i. Origins of Indian Philosophy ii. Indian Philosophical Schools
6	Mathematics, Astronomy and Scientific Literature	i. Ancient Indian Maths and traditions ii. The Decimal system iii. Calendrical systems iv. Linguistics v. Chemistry
7	Medicine and Health	i. Ayurveda ii. Yogashastra
8	Governance and Arthashastra	Governance and Arthashastra
9	Food and Agriculture	i. Food ii. Agriculture and Animal husbandry
10	Civilisation and Culture	i. The History of the Indian Civilisation ii. Ancient Indian Dynasties iii. Temple Architecture iv. Iconography

Course Code: 26BA1-G105	Subject: Principles of Management	Marks: 100 Credits: 4

Course Objectives:

1. To introduce students to the fundamental concepts, principles, and importance of management in modern organizations.
2. To develop understanding of the evolution of management thought and contributions of classical and modern management thinkers.
3. To familiarize students with major managerial functions such as planning, organizing, directing, controlling, and decision-making.
4. To provide knowledge about contemporary trends in management including quality management, knowledge management, and change management.

Course Outcome:

After completing the course, the student shall be able to

CO1: Explain the basic concepts, nature, importance, and functions of management and the role of managers in organizations.

CO2: Describe the evolution of management thought and analyze the contributions of major management thinkers and Indian business leaders.

CO3: Apply managerial functions such as forecasting, planning, organizing, decision-making, directing, and controlling in business situations.

CO4: Evaluate modern management practices and emerging trends such as change management, stress management, quality management, and outsourcing.

Unit	Unit Title	Contents	No of Lectures
I	Nature of Management	1.1 – Meaning, Importance & Functions of Management. 1.2 – Roles of Manager, Qualities of Manager 1.3 – Management as an Art, Management as a Science, as a Profession. 1.4 – Concept of Management, Concept of Administration, Concept of Organization.	10
II	Evolution of Management Thoughts	2.1 – Concept of Managerial Thoughts 2.2 – Contributions of F. W Taylor, Elton Mayo, Henry Fayol & Peter Drucker 2.3 – Application of Management Theories 2.4 – Indian Management Ethos 2.5 – Different style of Indian Management Leaders. Examples (Ratan Tata, Dhirubhai Ambani, Narayan Murthy, Varghese Kurien)	12
III	Evolution of Management Thoughts	3.1 – Forecasting: - Meaning, Need, Types, Methods, Advantages, Disadvantages. 3.2 – Planning: - Meaning, Need, Types, Process, Methods, Advantages, Disadvantages. 3.3 – Organising: - Meaning, Concept 3.4 – Delegation of Authority: - Meaning, Importance 3.5 – Decentralization: - Concept, Meaning, Importance 3.6 – Decision Making – Types, Process, Techniques	15

		3.7 – Direction: - Nature, Principles 3.8 – Motivation: - Meaning, Importance 3.9 – Controlling: - Meaning, Need, Process, Techniques 3.10 - Other Management Functions like Staffing, Co-ordinating	
IV	Recent Trends in Management.	4.1 – Management of Change 4.2 – Management of Crisis 4.3 – Total Quality Management, Just in Time (JIT), Kaizen 4.4 – Stress Management: - Principles & Advantages 4.5 – Knowledge Management 4.6 –Outsourcing: - Meaning, Advantages & Disadvantages	14
Total No of Lectures + Evaluation (50+10)			**60 Hours**

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept dimensions of a cylinder and display the surface area and volume of cylinder. [10 Marks]

Q2. Write a C program to find product of matrices. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Hospital (hno ,hname , city, Est_year, addr)

Doctor (dno , dname , addr, Speciality)

The relationship between Hospital and Doctor is one - to – Many Constraints: - Primary Key, Est_year should be greater than 1990.

Consider the above tables and execute the following queries:

1. Delete addr column from Hospital table.
2. Display the names of the hospitals which are located at “Pimpri” city.
3. Display the names of doctors who are working in “Birla” Hospital and city name is “Chinchwad”.
4. Display the specialty of the doctors who are working in “Ruby” hospital.

Q5. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept radius of a circle and display the area and circumference of a circle. [10 Marks]

Q2. Write a C program to calculate factorial of a number. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Emp(eno ,ename ,designation ,salary, Date_Of_Joining)
Dept(dno,dname ,loc)

The relationship between Dept & Emp is one-to-many.

Constraints: - Primary Key, ename should not be NULL, salary must be greater than 0.

Consider the above tables and Execute the following queries:

1. Add column phone_No into Emp table with data type int.
2. Display the count of employees department wise.
3. Display the name of department whose location is “Pune” and “Mr. Advait” is working in it.
4. Update Dateofjoining of employee to ‘15/06/2019’ whose department is ‘computer science’ and name is “Mr. Roy’.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept temperatures in Fahrenheit (F) and display it in Celsius(C) and Kelvin (K) (Hint: C=5.0/9(F-32), K = C + 273.10) [10 Marks]

Q2. Write a menu driven program to perform the following operations on strings using standard

library functions:

1. Length of String 2. Copy String 3. Connect Two Strings 4. Compare two strings [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Sales_order (ordNo, ordDate clientNo)

Client (clientNo, ClientName, addr)

The relationship between Client & Sales_order is one-to-many.
Constraints: - Primary Key, ordDate should not be NULL.

Consider the above tables and execute the following queries:

1. Delete the details of the clients whose names start with 'A' character.
2. Delete sales order details of client whose name is "Patil" and order date is "09/08/2019".
3. Change order date of client_No 'CN001' to '18/03/2019'.
4. Delete all sales_record having order date is before '10 /02/2018'.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept two numbers and print arithmetic and harmonic mean of the two numbers (Hint: AM= (a+b)/2 ,HM = ab/(a+b)) [10 Marks]

Q2. Write a C program to sum of middle row & column of metrics. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Project (pno, pname, start_date, budget, status) Department (dno, dname, HOD, loc)
The relationship between Project and Department is Many to One. Constraint: Primary key.
Project Status Constraints: C – Completed,
P - Progressive, I - Incomplete

Consider the above tables and execute the following queries:

1. Drop loc column from department table.
2. Display the details of project whose start_date is before one month and status is “Progressive”
3. Display the names of project and department who are worked on projects whose status is ‘Completed’.
4. Display total budget of each department.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to calculate sum of all even elements of an array. [10 Marks]

Q2. Write a program which accepts a sentence from the user and alters it as follows: Every space is replaced by *, case of all alphabets is reversed, digits are replaced by ? [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Book (Book_no, title, author, price, year_published) Customer (cid, cname, addr)
Relation between Book and Customer is Many to Many with quantity as descriptive attribute.
Constraint: Primary key, price should be >0.

Consider the above tables and execute the following queries:

1. Display the name of book whose author is “Mr. Gadhave”.
2. Add column EMailId into customer table.
3. Display author wise details of book.
4. Display book names having price between 100 and 200 and published year is 2019.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C Program to accept a character from the keyboard and display its previous and next character in order. Ex. If character entered is 'd', display "The previous character is c", "The next character is e". [10 Marks]

Q2. Write a program to display union and intersection of two 1D array. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]
Property (pno, desc, area, rate) Owner (owner_name, addr, phno)
The relationship between owner and Property is One to Many. Constraint: Primary key, rate should be > 0

Consider the above tables and execute the following queries:

1. Display area of property whose rate is less than 100000.
2. Give the details of owner whose property is at "Pune" .
3. Delete all properties from "pune" owned by "Mr. Joshi".
4. Update the phone Number of "Mr. Joshi" to 9922112233 who is having property at "Uruli Kanchan".

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept the x and y coordinates of two points and compute the distance between the two points. [10 Marks]

Q2. Write a menu driven program to perform the following operation on m*n Matrix [10 Marks]

1. Calculate sum of upper triangular matrix elements
2. Calculate sum of diagonal elements

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Employee (emp_no, name, skill, payrate) Position (posting_no, skill)

The relationship between Employee and Position is Many to Many with day and shift as descriptive attribute.
Constraint: Primary key, payrate should be > 0.

Consider the above tables and execute the following queries:

1. Display skill of employees name wise.
2. Update the posting of employee to 220 whose skill is “Manager”.
3. Find the names and rate of pay of all employees who has allocated a duty.
4. Display shift wise employee details.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. A cashier has currency notes of denomination 1, 5 and 10. Write a C program to accept the withdrawal amount from the user and display the total number of currency notes of each denomination the cashier will have to give. [10 Marks]

Q2. Write a program to accept a number and count number of even, odd and zero digits within that number. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Driver (driver_id, driver_name, address) Car (license_no, model, year)
Relation between Driver and Car is Many to Many with date and time as descriptive attribute.
Constraint: Primary key, driver_name should not be null.

Consider the above tables and execute the following queries:

1. Display the name of driver whose license no is “DPU123”.
2. Delete the details of car whose model is “swift”.
3. Display details of all persons who are driving ‘Alto’ car.
4. Update model of car to “SUV300” whose manufactured year is 2019.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept a character from the user and check whether the character is a vowel or consonant. [10 Marks]

Q2. Write a program, which accepts a number n and displays each digit in words.
Example: 6702 Output = Six-Seven-Zero-Two [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Student (stud_reg_no, stud_name, class) Competition (cno, cname, ctype)
Relation between Student and Competition is Many to Many with rank and year as descriptive attribute.
Constraint: Primary key, class must be("FY,SY,TY").

Consider the above tables and execute the following queries:

1. Count total no students class wise.
2. Delete the details of student who has participated in "Mehandi" competation.
3. Display students from class 'FY' and participated in 'E-Rangoli ' Competition.
4. Find the number of student for programming competition.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept the x and y coordinate of a point and find the quadrant in which the point lies. [10 Marks]

Q2. Accept radius from the user and write a program having menu with the following options and corresponding actions [10 Marks]

Options	Actions
1. Area of Circle	Compute area of circle and print
2. Circumference of Circle	Compute Circumference of circle and print
3. Volume of Sphere	Compute Volume of Sphere and print

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Plan (plan_no, plan_name, nooffreecalls, freecalltime, fix_amt) Customer (cust_no, cust_name, mobile_no)
Relation between Plan and Customer is One to Many. Constraint: Primary key, fix_amt should be greater than 0.

Consider the above tables and execute the following queries:

1. Display the details of plan who has taken by “Mr. Patil”.
2. Update the mobile No of customer to 7020079536 whose name is “Mr Roy” and plan is “Go Max”.
3. Delete the details of ‘John’ who has stopped ‘Go Max’ plan.
4. Find the plan whose fixed amount is greater than 5000.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept the cost price and selling price from the user. Find out if the seller has made a profit or loss and display how much profit or loss has been made. [10 Marks]

Q2. Write a program to accept a number and count number of even, odd and zero digits within that number. ` [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Employee (emp_id, emp_name, address)
Investment (inv_no, inv_name, inv_date, inv_amount)
Relation between Employee and Investment is One to Many. Constraint: Primary key, inv_amount should be > 0.

Consider the above tables and execute the following queries:

1. Display the details of employee who has invested amount in "Mutual Fund".
2. Add column Phone_No in Employee table.
3. Display employee details who have invested more than 100000.
4. Display employee wise total investment amount.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to calculate sum of digits of a given input number. [10 Marks]

Q2. Write a C program to find maximum element of 1D array. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Politicians (pno, pname, telephone_no) Party (party_code, party_name)

Relation between Politicians and Party is Many to One. Constraint: Primary key, party_name should not be null.

Consider the above tables and execute the following queries:

1. Display the name of party whose politician is “Mr. Patil”.
2. Update party name of politician whose name is “Mr.Pawar”.
3. Display party names in ascending order.
4. Display party wise politician name with details.

Q5. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to accept the value of n and display sum of all odd numbers up to n. [10 Marks]

Q2. Write a C program to generate following triangle up to n lines. [10 Marks]

```
A  B  C
A  B
A
```

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Game (game_name, no_of_players, coach_name) Player (pid, pname, address, club_name)
Relation between Game and Player is Many to Many.
Constraint: Primary key, no_of_players should be > 0.

Consider the above tables and execute the following queries:

1. Display the name of club whose coach is “Mr. Sehwag”.
2. Update the game name of player to cricket whose name is “Mr Rahane”.
3. Display players from ‘Delhi’.
4. Find the total number of cricket players of 'sports club”.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to check whether a input number is Armstrong number or not. [10 Marks]

Q2. Write a program to accept a string and then count the occurrences of a specific character of a string. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Item (item_no, item_name, quantity)
Suppliers (sup_no, sup_name, address, city, phone_no)
Relation between Item and Supplier is Many to Many with rate and discount as descriptive attribute.
Constraint: Primary key, phone_no must be 10 digits.

Consider the above tables and execute the following queries:

1. Display Suppliers whose names are starting with ‘s’ character. 3.
2. Delete items having quantity less than 2.
3. Display total number of suppliers who are supplying ‘Refrigerator’.
4. Display all suppliers supplying ‘Washing Machine’ with minimum cost.

Q5. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to check whether a input number is perfect number of not. [10 Marks]

Q2. Write a C program to accept n elements of 1D array and then display sum of all elements of array. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Wholesaler (w_no, w_name, address, city)

Product (product_no, product_name, rate)

Relation between Wholesaler and Product is Many to Many with quantity as descriptive attribute.

Constraint: Primary key, rate should be > 0.

Consider the above tables and execute the following queries:

1. Update product_name to “Monitor” whose supplier is “Mr. Patil”.
2. Display wholesaler from 'Pune' city and supplying 'Monitor'.
3. Display total number of wholesaler of each product.
4. Display all wholesalers who are supplying ‘Keyboard’ with maximum price.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to calculate x^y without using standard library function. [10 Marks]

Q2. Write a menu driven program to perform the following operation on m*n Matrix [10 Marks]

1. Display transpose of a matrix
2. Calculate sum of all odd elements of matrix

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Client (client_no, client_name, address, birthdate)
Policy_info (policy_no, desc, maturity_amt, prem_amt, date)
Relation between Client and Policy_info is Many to Many
Constraint: Primary key, prem_amt and maturity_amt should be > 0.

Consider the above tables and execute the following queries:

1. Display premium amount paid by “Mr. Mahandule” since 1 Jan 2024.
2. Display the details of client who have taken policy “Jeevan Raksha”.
3. Display Policy details having maturity amount >500000.
4. Find total number of policies purchased on 12th January 2022.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to display multiplication table of a given input number [10 Marks]

Q2. Write a C program to generate following triangle up to n lines. [10 Marks]

```
*   *   *   *
*   *   *
*   *
*
```

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Train (train_no, train_name, depart_time, arrival_time,source_stn, dest_stn)
Passenger (p_id,p_name,address,age, gender)
Relation between Train and Passenger is Many to Many with seat_no, amount and date as descriptive attribute.
Constraint: Primary key, seat_no should not be null.

Consider the above tables and execute the following queries:

1. Display passenger names and their seat no's of train "sahyadri express".
2. Display details of train in which "Mr. Roy" is travelling from "Pune" to "Uruli Kanchan".
3. Display passenger details having age>50
4. Find total number of passenger of "Pune to Mumbai" route.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to generate following triangle up to n lines. [10 Marks]

```
1
1  2
1  2  3
```

Q2. Write a C program to design calculator with basic operations using switch case. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Student (rno,sname,address,class) Subject (subno,subname)
Relationship: - Student and Subject are related with many-to-many relationship with attribute marks and status.
Constraints: - Primary Key, class must be fy,sy,ty.

Consider the above tables and execute the following queries:

1. List the names of student class wise.
2. Display the marks of students subject wise.
3. List the distinct names of students who have either Electronics, or Statistics or both subjects.
4. List the names of students who are either passed or failed.

Q4. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to generate following triangle up to n lines. [10 Marks]

```
1
2  3
4  5  6
```

Q2. Write a program to calculate addition of two matrices [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

Bus(bus_no, capacity, depo_name)
Route(Route_no, source, destination, no_of_stations)
Relation between Bus and Route is Many to One.
Constraint: Bus capacity should be greater than 0, depo_name should not be null.

Consider the above tables and execute the following queries:

1. List all buses at depo “kothrud”.
2. Delete bus details whose number is “MH12HL7812”.
3. List all buses on route no 41.
4. List the route details having number of stations > 10.

Q5. Viva / Oral [10 Marks]

F.Y.B.B.A.(C.A.) Semester - I Practical Slips

Lab Course: Computer Lab Based on C programming and DBMS.

Credit-2 Code-26BA1-H106

Q1. Write a C program to generate following triangle up to n lines. [10 Marks]

```
A
A   B
A   B   C
```

Q2. Write a C Program to find the sum of digits of a number until a single digit is occurred. [10 Marks]

Q3. Consider the following entities and their relationships. Create a RDB in 3 NF with appropriate data types and Constraints. [20 Marks]

College (code, college_name, address)
Teacher (teacher_id, teacher_name, Qualification, specialization, salary, Desg)
Relation between Teacher and College is Many to One. Constraint: Primary Key, qualification should not be null.

Consider the above tables and execute the following queries:

1. List the name of staff having qualification is “SET-NET”.
2. Update the salary of teacher to 50000 whose qualification is “PhD”.
3. Display the designation of teacher whose name is “Mr Patil” and he is working in GCC college.
4. Display teacher wise salary.

Q5. Viva / Oral [10 Marks]

Course Code: 26BA1-I107	Subject: English for Business Communication	Marks: 50 Credits: 2

Course Objectives:

1. To understand the English grammar and develop writing skills.
2. To understand and develop the professional communication skills.

Course Outcome:

After completing the course, the student shall be able to

CO1: Demonstrate basic knowledge of English grammar and writing skills

CO2: Develop the professional communication skills

Unit	Unit Title	Contents	No. of Lectures
I	Basic English Grammar & writing skills	1.1 Active and Passive voice, tenses 1.2 Identifying nouns, adjectives, adverbs, pronouns, punctuations 1.3 Paraphrasing 1.4. Concept, need and functions of writing skills like Business Correspondence 1.5 Essentials of Business Letters 1.6 Seven C's of Business Letters 1.7 Types of Business letters 1.8 Layout/Drafting of business letter. 1.9 Business Correspondence: Enquiry Letter, Reply to 1.10 enquiry, Purchase Order, Credit & Status enquiry letter, Sales Letter, Complaint letter, promotional letter, leave application and resignation letters 1.11 Dialog Writing, Notice and Circular writing, Blog Writing	15
II	Introduction to Professional Communication Skills and their methods	2.1 Communication - meaning, importance, communication process model 2.2 Process of Communication 2.3 Barriers in Communication 2.4 Verbal Communication, Non-verbal Communication, 2.5 Formal Communication, Informal Communication. 2.6 Oral communication- Objectives, Functions, Advantages and Disadvantages. Types of Oral Communication 2.7 Written communication, Pros and Cons of written communication, Constraints in developing effective written communication. 2.8 Non-Verbal Communication- Objectives, Functions, Advantages and Disadvantages. Forms of Non- Verbal Communication	15
Total No of Lectures + Evaluation			30

Course Code: 26BA1-J108	Subject: Environmental Studies and Sustainability-I	Marks: 50 Credits :2

Course Objectives:

1. Introduce students to the philosophical and ethical foundations of environmental responsibility.
2. Familiarize students with sustainability concepts relevant to business and economic development.
3. Explain the idea of carbon footprint, carbon markets, and climate responsibility in corporate practice.
4. Provide an understanding of green finance, Green Marketing, Green Human Resource and ESG frameworks used in modern corporate governance.
5. Explore innovative sustainability approaches such as biomimicry and circular economy models.

Course Outcome:

After completing the course, the student shall be able to

CO1: Explain the principles of environmental ethics and sustainable development and analyze the role of businesses in addressing climate change and environmental challenges.
CO2: Understand the concept of carbon footprint and emerging carbon markets.
CO3: Evaluate green finance instruments and ESG practices used in corporate governance.
CO4: Identify innovative sustainability approaches such as biomimicry and circular economy models.

Unit	Unit Title	Contents	No. of Lectures
I	Environmental Ethics and Sustainable Development	• Meaning and scope of environmental ethics • Aspects of Sustainable development (Environmental, Economic, Social, Cultural, Technological, Political) • Anthropocentric and eco centric perspectives • Environmental Index Parameters • Economic Sustainability Index Parameters • Environmental stewardship and ethical responsibility • Sustainable development and intergenerational equity • Tragedy of the Commons • United Nations Sustainable Development Goals (SDGs) • Corporate Social Responsibility (CSR) and environmental responsibility • Triple Bottom Line: People, Planet, Profit • Integration of Triple Bottom Line	**8**
II	Carbon Footprint and Carbon Economy	• Concept of carbon footprint and climate change • Measurement of carbon emissions • Corporate carbon accounting • Carbon as the "new currency" in global environmental governance • Carbon credits and carbon markets • Carbon pricing mechanisms: carbon tax and cap-and-trade • Net-zero commitments and corporate climate strategies	**7**
III	Green Finance, Marketing, HR and Sustainable Business	• Meaning and importance of green finance/HR/Marketing • Climate finance and sustainable investment • Green bonds 2.0 • Sustainability -linked financial instruments • ESG (Environmental, Social and Governance) framework	**7**

		• AI- Based ESG scoring • Carbon Credit Markets • Block Chain based Green Bonds • Paper less HR systems • Circular economy principles • Sustainable supply chains and resource efficiency	
IV	Biomimicry and Future of Sustainable Business	• Concept of biomimicry and nature-inspired innovation • Principles of ecological design • Applications of biomimicry in business and industry • Nature-inspired product design and architecture • Green entrepreneurship and sustainability innovation • Climate-tech and sustainable business models • Crporate leadership in environmental responsibility	**8**
Total No of Lectures + Evaluation			30

Course Code: 26BA1-K109	Course: Sports Proficiency and Participation in Sports Competitions (Inter-Collegiate Level)	Marks: 50 Credits :2

Course Objectives:

1. Encourage participation in inter-collegiate sports competitions.
2. Develop physical fitness, discipline and sportsmanship.
3. Identify and nurture sports talent.
4. Promote holistic development as per NEP 2020.
5. Develop leadership, perseverance and confidence.

Course Outcome:

After completing the course, the student shall be able to:

- **CO1**: Participate actively in inter-collegiate sports competitions and represent the institution with improved competitive skills.
- **CO2**: Demonstrate improved physical fitness, discipline, teamwork, and sportsmanship through regular participation in sports activities.
- **CO3**: Identify individual sports abilities and talents and apply systematic training methods to enhance performance.
- **CO4**: Integrate physical activity, well-being, and value-based learning in accordance with the vision of the National Education Policy 2020 (NEP 2020) for holistic development.
- **CO5**: Exhibit leadership qualities, perseverance, self-confidence, and decision-making abilities through participation in team and individual sports activities.

Unit	Unit Title	Contents	No. of Lectures
I	Physical Fitness Development	Strength, Endurance, Flexibility, Speed, Agility, Balance, Coordination, Reaction Time, Body Composition	15 Hours
II	Sports Training and Practice	Skill training, practice sessions, drills, sport specific techniques and practice matches	15 Hours
III	Sports Nutrition and Recovery	Balanced diet, hydration, rest, recovery methods and injury prevention	10 Hours
IV	Participation in Sports Competitions	Participation in inter-collegiate sports competitions and trials	20 Hours

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Course Code: 26BA1-K117	Course: National Cadet Corps - I	Marks: 50 Credits: 02

Course Objectives:

1. To introduce students to the concept of discipline, leadership, and citizenship.
2. To develop awareness about the role of youth in nation-building and community development.
3. To familiarize students with basic concepts of personality development and teamwork.
4. To prepare students for advanced understanding of NCC organisation and Armed Forces in higher semesters.

Course Outcome:

After completing the course, the student shall be able to

CO1. demonstrate an understanding of discipline, leadership, and civic responsibilities.
CO2. explain the role of youth in social service and national development.
CO3. develop teamwork, communication skills, and leadership qualities.
CO4. build a foundation for further learning about NCC and the Armed Forces.

Unit	Unit Title	Contents	No. of Lectures
I	Citizenship, Discipline and Leadership	1.1 Meaning and importance of discipline 1.2 Duties and responsibilities of citizens 1.3 Fundamental Duties under the Constitution of India 1.4 Leadership: Meaning, qualities and types 1.5 Role of youth in nation building 1.6 Social responsibility and community service 1.7 Teamwork and group dynamics	15
II	Personality development & Introduction to NCC	2.1 Personality development: Meaning and importance 2.2 Communication skills and confidence building 2.3 Time management and goal setting 2.4 Health, hygiene and physical fitness 2.5 Environmental awareness and sustainability 2.6 Social service activities and community engagement 2.7 Introduction to NCC activities and opportunities	15
Total			30

Course Code: 26BA1-K118	Subject: National Service Scheme I	Marks: 50 Credits: 02

Course Objectives:

1. To help learners know about NSS in the context of youth, community and voluntary service.
2. To propagate yoga as a way of healthy living.

Course Outcome:

After completing the course, the student shall be able to:

CO1: Learners will have the knowledge about NSS and its role in the fields of health, hygiene and sanitation so as to build a strong country.

CO2: They will be able to use Yoga for healthy living.

Unit	Unit Title	Contents	No. of Lectures
I	Life Competencies & Youth Leadership	Definition and importance of life competencies; communication and soft skills; Youth leadership	10
II	Youth Health and Yoga	Healthy lifestyles; drugs and substance abuse, History and philosophy of yoga; Yoga for healthy living	20
Total			30

Course Code: 26BA1-K119	Subject: Youth Red Cross I	Marks: 50 Credits: 02

Course Objectives:

1. To introduce college students to the functioning and activities of the Red Cross Society at the global level.
2. To develop an understanding of humanitarian principles and ethical values.

Course Outcome:

After completing the course, the student shall be able to:

CO1: Understand the functioning and various activities carried out by the Red Cross Society at the global level.

CO2: Apply humanitarian principles and ethical values while performing social and community service activities.

Unit	Unit Title	Contents	No. of Lectures
I	Introduction to Red Cross Society	1.1 History and Mission of the International Red Cross and Red Crescent Movement 1.2 Fundamental Principles of the Red Cross – Humanity, Impartiality, Neutrality, Independence, Voluntary Service, Unity, and Universality 1.3 Organisation of the Red Cross Movement 1.4 Functions of the International Committee of the Red Cross (ICRC) 1.5 Role of the International Federation of Red Cross and Red Crescent Societies (IFRC) 1.6 Functions of National Red Cross Societies (NRCS) 1.7 Functions of the Indian Red Cross Society (IRCS) 1.8 Red Cross Activities at the State Level 1.9 Red Cross Activities at the Pune District Branch.	15
II	Humanitarian Principles & Ethics	2.1 Understanding humanitarian principles in action 2.2 Ethical considerations in humanitarian work 2.3 Respect for cultural diversity and inclusivity 2.4 Upholding the dignity and rights of individuals in need 2.5 Group discussions and case studies on humanitarian dilemmas.	15
Total			**30**

Course Code: 26BA1-K120	Course: Performing Arts (Cultural and Dramatics Association) I	Marks: 50 Credits: 02

Course Objectives:

1. To provide students with a comprehensive understanding of the performing arts disciplines of Dance, Drama, and Music.
2. To explore the management of stage and learn it as a skill.

Course Outcome:

After completing the course, the student shall be able to

1. Demonstrate a comprehensive understanding of the fundamental concepts and practices of Dance, Drama, and Music.
2. Students will be able to articulate the stage management skills.

Unit	Unit Title	Contents	No. of lectures
I	Introduction to Performing Arts	2.1 Overview of Dance, Drama, Music 2.2 Skills required for Performing Arts- Verbal Communication, Body Language, Facial Expressions, etc. 2.3 Vocal skills- Voice Modulation, Tone, Pitch, Diction.	15
II	Introduction Stage Management	2.1 Stage management- Meaning, Role of the stage manager. 2.2 The prompt book: Contact Sheet, Prop list, Calling sheet. 2.3 Pre-production phase: Lighting cues, sound effects, Costume changes.	15
Total No. of Lectures			30