"Education for knowledge, science and culture" - Shikshanmaharshi Dr. Bapuji Salunkhe Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE (Empowered AUTONOMOUS), KOLHAPUR

B. Sc. (Computer Science Entire) – II (2024-25) NEP Syllabus with effect from June, 2024 Semester: III

Course Title: Object Oriented Programming Using C++

Course Code: DSC06COM31

After Completion of this course student will be able to:

CO1	To build C++program structure, Input and output Streams, inline function, default argument, function overloading and explain Object Oriented Programming Concepts.
CO2	To explain class, access modifiers and define member functions of a class, develop the programs using array of object, define a constructor, destructor and explain features of constructor, types of constructor, destructor.
CO3	To explain rules for operator overloading and implement programs using unary and binary operator overloading.
CO4	To explain inheritance and define Base class and derived class and implement programs using types of inheritance, define polymorphism and explain types of polymorphism and implement programs using virtual function and explain concept of pure virtual function and abstract class.



Course Title: RDBMS with MYSQL

Course Code: DSC06COM32

After Completion of this course student will be able to:

To understand DED EDD types of relations and draw DED
To understand DFD, ERD, types of relations and draw DFD, ERD.
To understand normalization and different forms of normalization with real world problems.
To understand MySQL basics, features of MySQL and classify DDL, DML, DCL commands, Data constraints.

Course Title: 8051 Microcontroller

Course Code: MIN06ELE31

After Completion of this course student will be able to:

CO1	Understand the architecture of 8051 microcontroller.
CO2	Understand the knowledge about assembly language programs of 8051microcontroller.
CO3	Understand the timer, counter, serial and interrupts of microcontroller.
CO4	Build systems using microcontroller with real time interfacing.



Course Title: Internet of things (IOT)

Course Code: MIN06ELE32

After Completion of this course student will be able to:

CO1	Gain knowledge about the architecture of IoT systems.
CO2	Study the working principle of various types of sensors and actuators used in IoT applications.
CO3	Explore wireless technologies for IoT and gain an overview of different
	IoT protocols.
CO4	Explore cloud platforms used in IoT, including IoT dashboards and
	various cloud service providers

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B. Sc. (Computer Science Entire) - II (2024-25) NEP Syllabus with effect from June, 2024 Semester: IV

Course Title: Data structure Course Code: DSC06COM41

After Completion of this course student will be able to:

COI	To define Data Type, Data structure, Data object and explain Abstract Data Type, Linear and nonlinear data structures, explain Algorithm efficiency, array, types of
CO2	To implement programs using Linear and Binary searching
	techniques and Bubble sort, Selection sort, Insertion sort
CO3	To define Stack and demonstrate operations and static implementation of stack, explain applications of stack, to define queue and demonstrate operations and static
	implementation of queue and explain types of queues.
CO4	To explain Linked list and types of linked list, define Tree and explain tree terminologies and tree traversal.

Course Title: Introduction to RDBMS using MySQL

Course Code: DSC06COM42

After Completion of this course student will be able to:

After C	ompletion of this course student will be able to. To understand and implement MySQL constraints and
CO1	
	operators.
CO2	To understand and implement MySQL functions To understand and implement MySQL functions To understand and implement MySQL functions
CO3	To understand and implement MySQL Sub Queries, Join, Views, To understand and implement MySQL Sub Queries, Join, Views,
	Index and Sequence.
	To understand and implement Cursor and Trigger in MySQL
CO4	To understand and implement earlier and earlier



Course Title: Raspberry Pi Course Code: MIN06ELE41

After Completion of this course student will be able to:

CO1	Understand the working of Raspberry Pi, its features and how various components can be used with Pi.
CO2	Understand the Raspbian OS
CO3	Understand the introduction to Python programming
CO4	Python programming and apply creative thinking skills in the design of practical solutions to specific case studies and projects

Course Title: Computer Networks

Course Code: MIN06ELE42

After Completion of this course student will be able to:

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CO1	Know the fundamentals of computer networks.
CO2	Get familiarize with different public switched telephone networks.
CO3	Apply knowledge of transmission media, multiplexing and telephone networks.
CO4	Design and analyze the computer network protocols.

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