


“Education for Knowledge, Science, and Culture”
- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur
(Autonomous)



KOLHAPUR (AUTONOMOUS)

B Sc Computer Science Entire (B.C.S.)
Content with Focus on Employability, Entrepreneurship, Skill Development

Sr no.	Name of the Course	Course Code	Year of Introduction	Content with focus on employability	Content with focus on entrepreneurship	Content with focus on skill development
1	SEM - I English for Business Communication	AECC	2018-19	CO1: To understand the concept, process and importance of communication. CO2: To gain knowledge of media of communication. CO3: To develop skills of effective communication - both written and oral. CO4: To make students familiar with information technology	CO4: To make students familiar with information technology	CO3: To develop skills of effective communication - both written and oral.
2	Mathematics	GEC-1300A	2018-19	CO1: Construct simple mathematical proofs and possess the ability to verify them. Comprehend formal logical arguments. CO2: Apply basic counting techniques of combinatorial problems. Specify and manipulate basic mathematical objects such as sets, functions and relations and will also be able to verify simple mathematical properties that these objects possess. CO3:		





				Classify numbers into number sets. Determine function is one-one and Onto. CO4: Prove results involving divisibility & greatest common divisors. Apply Fermat's theorem to find the remainder when any large number is divided by any other integer		
3	Electronics	GEC-1301A	2018-19	CO1: Study the current voltage characteristics of semiconductor devices, understand the behavior of basic electronic components, Explain the concept of circuit laws and network theorems and apply them to laboratory measurements CO2: Understand to semiconductor devices. Characteristics and biasing of diodes and transistors. Design and analysis of circuits using diodes, bipolar transistors, and field effect transistors. Application of transistors as amplifiers and switches. CO3: Understand basic digital electronic systems. To learn different theorems and laws for simplification of basic Digital electronics circuits. understand symbols, Truth tables, Boolean equations, & working principle CO4: Teach basic principles of programming. Develop skills for writing programs using 'C'.		CO3: Understand basic digital electronic systems. To learn different theorems and laws for simplification of basic Digital electronics circuits. understand symbols, Truth tables, Boolean equations, & working principle CO4: Teach basic principles of programming. Develop skills for writing programs using 'C'.
4	Descriptive statistics-I and Discrete probability distributions	GEC-1302 A	2018-19	CO1: To classify, tabulate and represent the data graphically. CO2: To compute and interpret various measures of central tendency, dispersion, moments, skewness and kurtosis. CO3: To compute probabilities by using definition and probability rules. CO4: To compute probabilities by using discrete probability distributions.		






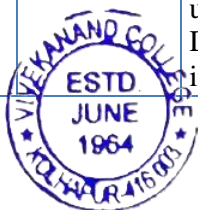
5	Computer Science	CC-CS-1303A	2018-19	<p>CO1: Understand Basic elements of a communication system, Data Transmission modes, Data Transmission media, Types of networking Network Topologies, Definition and declaration, Operations on pointer, Pointer initialization, Pointer And Array, Pointer of pointer, Dynamic memory allocation. CO2: Understand Information Technology IT Assets and its managements, ITAct, Definition, declaration, prototype of function, Local and global variable, User defined functions, Storage classes, Recursion, Pointer and function, Call by value and Call by reference. CO3: Understand Database Management System, Data Models, Concept of RDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA, Relational Model, Definition and declaration, Array of structures, Passing structure to function, Pointer to structure, Nested structure, self referential structure, Size of and type def, Definition of Union and declaration, Difference between structure and union. CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File opening mode</p>	<p>CO3: Understand Database Management System, Data Models, Concept of RDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA, Relational Model, Definition and declaration, Array of structures, Passing structure to function, Pointer to structure, Nested structure, self referential structure, Size of and type def, Definition of Union and declaration, Difference between structure and union. CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File opening mode</p>	<p>CO1: Understand Basic elements of a communication system, Data Transmission modes, Data Transmission media, Types of networking Network Topologies, Definition and declaration, Operations on pointer, Pointer initialization, Pointer And Array, Pointer of pointer, Dynamic memory allocation. CO2: Understand Information Technology IT Assets and its managements, ITAct, Definition, declaration, prototype of function, Local and global variable, User defined functions, Storage classes, Recursion, Pointer and function, Call by value and Call by reference. CO3: Understand Database Management System, Data Models, Concept of RDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA, Relational Model, Definition and declaration, Array of structures, Passing structure to function, Pointer to structure, Nested structure, self referential structure, Size of and type def, Definition of Union and declaration, Difference between structure and union. CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File opening mode</p>
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6	Sem II English for Business Communica tion	AECC	2018-19	<p>CO1: To acquaint the students with employment communication—Writing Resume, Acquiring Interview Skills etc.. CO2: To introduce the students with the knowledge of office management CO3: To develop skills of effective communication - both written and oral CO4: To make students familiar with modern technology</p>	<p>CO1: To acquaint the students with employment communication—Writing Resume, Acquiring Interview Skills etc.. CO2: To introduce the students with the knowledge of office management CO3: To develop skills of effective communication - both written and oral CO4: To make students familiar with modern technology</p>	<p>CO1: To acquaint the students with employment communication—Writing Resume, Acquiring Interview Skills etc.. CO2: To introduce the students with the knowledge of office management CO3: To develop skills of effective communication - both written and oral CO4: To make students familiar with modern technology</p>
7	Mathematic s 	GEC- 1300A	2018-19	<p>CO1: Apply principles and concepts of graph theory in practical situations. Understand applications of graph theory in areas of Computer Science, Biology, Chemistry, Physics, Sociology etc. CO2: To model real world problems using graph theory. To model real world problems using graph theory CO3: Inspect the value of the limit of a function at a point using the definition of the limit. Find the limit of a function at a point numerically and algebraically using appropriate techniques including L'Hospital's rule. CO4: Experiment with differentiation of exponential, logarithmic, trigonometric & inverse trigonometric functions n times. Illustrate the consequences of the intermediate value theorem for continuous functions. Show whether a function is differentiable at a point</p>		

8	Electronics	GEC-1301B	2018-19	<p>CO1: Design and analyze the basic operations of MOSFET. Know about the multistage amplifier using BJT in various configurations to determine frequency response and concept of voltage gain. Know the concept of feedback amplifier and their characteristics. Design the different oscillator circuits for various frequencies</p> <p>CO2: Understand and analyze the IC 741 operational amplifier and its characteristics. Understanding various operating modes of Op-amp and its linear/non-linear applications</p> <p>CO3: Study different types of multivibrator and wave form generator using IC555. Understand concept of memories and types of memories</p> <p>CO4: Understand the basic architecture of 8-bit microprocessors and 16 bit microprocessor. Identify the addressing modes of an instruction. Develop programming skills in assembly language. Able to write programs on 8085 microprocessor based systems</p>		
9	Descriptive statistics-II and Continuous probability distributions and Testing of Hypothesis	GEC-1302 B	2018-19	<p>CO1: Relation between two and three variables, Fitting of simple and multiple regression equations. CO2: Finding of probabilities of various distributions CO3: Knowing the relations among the different distributions with real life situations and Simulation of various distributions. CO4: Applying the small sample and large sample tests in various situations</p>	 <p>A circular logo for Vivekanand College. The outer ring contains the text 'VIVEKANAND COLLEGE' at the top and 'KOLHAPUR-415 001' at the bottom, separated by two stars. The inner circle contains the text 'ESTD JUNE 1964'.</p>	

10	Computer Science	CC-CS-1303B	2018-19	<p>CO1: Understand Basic elements of a communication system, Data Transmission modes, Data Transmission media, Types of networking Network Topologies, Definition and declaration, Operations on pointer, Pointer initialization, Pointer And Array, Pointer of pointer, Dynamic memory allocation. CO2: Understand Information Technology IT Assets and its managements, ITAct, Definition, declaration, prototype of function, Local and globalvariable, User defined functions, Storage classes, Recursion, Pointer andfunction, Call by value and Call by reference CO3: Understand Database Management System, Data Models, Concept ofRDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA,Relational Model, Definition and declaration, Array of structures,Passing structure to function, Pointer to structure, Nested structure, self referential structure, Sizeof and typedef, Definition of Union and declaration, Difference between structure and union CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File opening mode</p>	<p>CO3: Understand Database Management System, Data Models, Concept ofRDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA,Relational Model, Definition and declaration, Array of structures,Passing structure to function, Pointer to structure, Nested structure, self referential structure, Sizeof and typedef, Definition of Union and declaration, Difference between structure and union CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File</p>	<p>CO1: Understand Basic elements of a communication system, Data Transmission modes, Data Transmission media, Types of networking Network Topologies, Definition and declaration, Operations on pointer, Pointer initialization, Pointer And Array, Pointer of pointer, Dynamic memory allocation. CO2: Understand Information Technology IT Assets and its managements, ITAct, Definition, declaration, prototype of function, Local and global variable, User defined functions, Storage classes, Recursion, Pointer and function, Call by value and Call by reference CO3: Understand Database Management System, Data Models, Concept of RDBMS, RDBMS Terminologies, DBA & Responsibilities of DBA,Relational Model, Definition and declaration, Array of structures,Passing structure to function, Pointer to structure, Nested structure, self referential structure, Sizeof and typedef, Definition of Union and declaration, Difference between structure and union CO4: Understand Oracle Data types, Classification of SQL commands, Data Constraints, Concept of File, Text and binary files, Opening and closing files, File opening mode</p>
11	Linear algebra & Numerical	GEC – 1300C	2019-20	<p>CO 1: To make use of computational techniques & algebraic skills essential for the study of systems of linear equations, matrix algebra , vector spaces, eigenvalues &</p>	 <p>VIVEKANAND COLLEGE ESTD JUNE 1964 TQ. WAR. 415 003</p>	

	methods			eigenvectors, orthogonality & diagonalization. CO 2: To make use of visualization, spatial reasoning, as well as geometric properties & strategies to model, solve problems & view solutions especially in R^2 & R^3 as well as conceptually extend these results to higher dimensions. CO 3: To critically analyze & construct mathematical arguments that relate to the study of introductory linear algebra, explain methods of numerical integration, numerical solutions of ordinary differential equations. Illustrate numerical solutions of non – linear equations. CO4: To apply numerical analysis which has enormous application in the field of science and some fields of engineering. Demonstrate the finite precision computation		
12	Computer Instrumentation And Organization, Processor	GEC-1301 C	2019-20	CO 1: To explain principle of operation for various sensors. Describe functional blocks of different types of Digital instruments and data acquisition system. CO 2: To select appropriate instrument for the measurement of electrical parameter professionally. Design Digital to Analog Converters (DAC) and Analog to Digital Converters (ADC). CO 3: To understand the basic structure of computer organization CO4: To use instructions for different addressing modes and construct an assembly language programs for given task using assemble		
13	Introduction to RDBMS using MySQL and	CC-CS-1304C	2019-20	CO 1: To draw DFD, ERD, create relational database using normalization and to understand MySQL basics, classify DDL, DML, DCL commands and data constraints, implement SQL operators and functions,	CO 1: To draw DFD, ERD, create relational database using normalization and to understand MySQL basics, classify DDL, DML, DCL	CO 1: To draw DFD, ERD, create relational database using normalization and to understand MySQL basics, classify DDL, DML, DCL commands and data constraints, implement SQL



	Object Oriented Programming Using C++			<p>build C++ program structure, memory management operators, this pointer and reference variable, default argument, function overloading and explain Object Oriented Programming Concepts. CO 2: To implement programs in C++ using control structures, inline function, explain class, access modifiers and define member functions of a class, static data members and member function, develop the programs using array of object, friend function and friend class. CO 3: To define a constructor, destructor and explain features of constructor, destructor and types of constructor, 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.</p>	<p>commands and data constraints, implement SQL operators and functions, build C++ program structure, memory management operators, this pointer and reference variable, default argument, function overloading and explain Object Oriented Programming Concepts. 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.</p>	<p>operators and functions, build C++ program structure, memory management operators, this pointer and reference variable, default argument, function overloading and explain Object Oriented Programming Concepts. CO 2: To implement programs in C++ using control structures, inline function, explain class, access modifiers and define member functions of a class, static data members and member function, develop the programs using array of object, friend function and friend class. CO 3: To define a constructor, destructor and explain features of constructor, destructor and types of constructor, 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.</p>
14	Computational Geometry & Operations research	GEC – 1300D	2019-20	<p>CO 1: To demonstrate knowledge of key notions & principles related to computational geometry. Experiment with the central problems in the area & the various approaches to tackling. CO 2: To identify familiarity with some of the basic algorithmic techniques of the area. Elaborate</p>	 <p>A circular logo for Vivekanand College. The outer ring contains the text 'VIVEKANAND COLLEGE' at the top and 'KOLHAPUR-415 003' at the bottom. Inside the ring, it says 'ESTD JUNE 1964'.</p>	

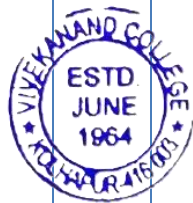
				acquaintance with modern research in the field. To develop operational research from the verbal description of the real world system. CO 3: To formulate and solve the mathematical models (linear programming problems) for physical situations like production, distribution of goods and economics. CO4: To solve the problems of transporting of products from origin to destinations with least transportation cost. Identify the resources required for projects and generate plan and work schedule.		
15	Communication Principles AND 8051 Microcontroller Interfacing, Programming	GEC-1301 D	2019-20	CO 1: To understand different blocks in communication system and how noise affects communication using different parameters. Distinguish between different modulations schemes with their advantages, disadvantages and applications. CO 2: To differentiate between different pulse modulation and demodulation techniques. Know the different multiple access schemes. CO 3: To compare personal area network (PAN) technologies such as RFID Zigbee, Bluetooth and Wi-Fi. To draw and describe architecture of 8051 microcontroller. Understand the facilities of 8051 microcontroller. CO4: To understand interfacing various peripheral devices to the microcontrollers. Write assembly language program for microcontrollers. Design microcontroller based system for various applications.		
16	Introduction to Data Structure	CC-CS-1304D	2019-20	CO 1: To define Data Type, Data structure, Data object and explain Abstract Data Type, Linear and nonlinear data structures, explain Algorithm efficiency, array, types of array	CO 1: To define Data Type, Data structure, Data object and explain Abstract Data Type, Linear and nonlinear	CO 1: To define Data Type, Data structure, Data object and explain Abstract Data Type, Linear and nonlinear data structures, explain



Using C++ and Cyber Security		<p>and sparse matrices, CO 2: To define Stack and demonstrate operations and static implementation of stack. To define queue and demonstrate operations and static implementation of queue and explain types of queues, explain Linked list and types of linked list. CO 3: To implement Stack and Queue using Linked list, define Tree and explain tree terminologies and tree traversal. To implement programs using searching and sorting techniques. CO4: To explain working of computer network and importance of cyber security, understand different security threats and information security management, explain access controls methods and wireless network security, understand cyber security laws and importance of security audit</p>	<p>data structures, explain Algorithm efficiency, array, types of array and sparse matrices, CO 2: 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, explain Linked list and types of linked list. CO 3: To implement Stack and Queue using Linked list, define Tree and explain tree terminologies and tree traversal. To implement programs using searching and sorting techniques. CO4: To explain working of computer network and importance of cyber security, understand different security threats and information security management, explain access controls methods and wireless network security, understand cyber security laws and importance of security audit</p>	<p>Algorithm efficiency, array, types of array and sparse matrices, CO 2: 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, explain Linked list and types of linked list. CO 3: To implement Stack and Queue using Linked list, define Tree and explain tree terminologies and tree traversal. To implement programs using searching and sorting techniques. CO4: To explain working of computer network and importance of cyber security, understand different security threats and information security management, explain access controls methods and wireless network security, understand cyber security laws and importance of security audit</p>
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17	Core Java and Operating system	DSC-1305E	2020-2021	<p>CO 1: To understand structure of java program, jvm, type conversion. Explain and implements programs in java using control statements, method overloading, constructors, array of objects, keywords this and static. CO 2: To write program on inheritance, package, abstract class and interfaces, Implement multithreading in object oriented programs. Understand concept of checked and unchecked exception and write exception handling programs. CO 3: To tell what is an operating system, its objectives and functions. To classify types of operating system and explain operating system services. CO 4: To explain protection, system calls, system programs and application programs. To understand the concept of process management, memory management and file management and deadlocks</p>		<p>CO 3: To tell what is an operating system, its objectives and functions. To classify types of operating system and explain operating system services. CO 4: To explain protection, system calls, system programs and application programs. To understand the concept of process management, memory management and file management and deadlocks</p>
18	Data communication and Software Engineering with UML	DSC-1306E	2020-2021	<p>CO 1: To understand the fundamental concept and components of Data Communication system. To explain Concept of network, advantages and disadvantages, categories and architectures of network. To explain types of transmission media and types of transmission modes. Understand multiplexing and switching techniques. Explain network devices, protocols and elements of protocol and standards. CO 2: To understand functions of physical layer, digital to analog conversion methods, analog to digital conversion methods. Understand Data link layer design issues, Framing, Error detection, and Error correction and flow</p>	<p>CO 2: To understand functions of physical layer, digital to analog conversion methods, analog to digital conversion methods. Understand Data link layer design issues, Framing, Error detection, and Error correction and flow control. To understand the basics of software and software engineering. To learn what is system's development life cycle</p>	<p>CO 3: To learn and understand what are traditional and latest process models, learn and know what agile development is. To learn different fact finding techniques, which serve as a basis for requirements analysis and gathering, understand the importance of SRS in s/w development. CO 4: To study use of Unified modeling language. To learn how to draw UML diagram. To understand and learn to select suitable UML diagram for our software system. To understand the basics of software testing</p>



				control. To understand the basics of software and software engineering. To learn what is system's development life cycle CO 3: To learn and understand what are traditional and latest process models, learn and know what agile development is. To learn different fact finding techniques, which serve as a basis for requirements analysis and gathering, understand the importance of SRS in s/w development. CO 4: To study use of Unified modeling language. To learn how to draw UML diagram. To understand and learn to select suitable UML diagram for our software system. To understand the basics of software testing		
19	Vb.net and E-Commerce	DSC-1307E	2020-2021	CO 1: To understand the Event driven & sequence driven programming, to explain .net framework architecture, understand assembly, namespace, garbage collector & JIT Compilers CO 2: To understand data types, operators, conditional, unconditional & looping statements. To understand how to write function & procedures Understand class, object, & OOP concepts. CO3: To understand different controls in window application, events & properties of controls, the process of Electronic commerce and Business strategy involved in it and security concerns while doing online businesses. CO4: To appreciate ethical implications of professional practice. Be aware of global perspectives. Analyze features of existing e-	CO 2: To understand data types, operators, conditional, unconditional & looping statements. To understand how to write function & procedures Understand class, object, & OOP concepts.	CO3: To understand different controls in window application, events & properties of controls, the process of Electronic commerce and Business strategy involved in it and security concerns while doing online businesses. CO4: To appreciate ethical implications of professional practice. Be aware of global perspectives. Analyze features of existing e- commerce businesses, and propose future directions or innovations for specific businesses



				commerce businesses, and propose future directions or innovations for specific businesses		
20	PHP programming	SEC-III	2020-2021	CO1: To earn skill set to develop online information system using the open source PHP.	CO1: To earn skill set to develop online information system using the open source PHP.	CO1: To earn skill set to develop online information system using the open source PHP.
21	Advanced Java and Data warehousing and mining	DSE-1305F	2020-2021	CO 1: To create a full set of UI Widgets using Abstract Windowing Toolkit (AWT) & Swings. Learn to access database through Java programs, using Java Data Base Connectivity (JDBC). Create dynamic web pages using Servlets CO 2: To create dynamic web pages using JSP. To understand Data Warehousing, Working of data warehouse, Data Warehouse applications. To understand types of data Warehouse, Difference between Data Warehouse (OLAP) and Operational Database (OLTP). CO 3: To understand and explain concept of data mining, Process of knowledge discovery in databases (KDD). To Explain Data Objects and Attribute Types. To Understand Data Preprocessing and Data Quality. To Understand Data Preprocessing and Data Quality CO 4: To	CO 1: To create a full set of UI Widgets using Abstract Windowing Toolkit (AWT) & Swings. Learn to access database through Java programs, using Java Data Base Connectivity (JDBC). Create dynamic web pages using Servlets CO 2: To create dynamic web pages using JSP. To understand Data Warehousing, Working of data warehouse, Data Warehouse applications. To understand types of data Warehouse, Difference between Data Warehouse	CO 3: To understand and explain concept of data mining, Process of knowledge discovery in databases (KDD). To Explain Data Objects and Attribute Types. To Understand Data Preprocessing and Data Quality. To Understand Data Preprocessing and Data Quality



				explain major tasks in Data Preprocessing.To understand market basket analysis and explain Apriori algorithm.To understand concept of Classification. To understand regression analysis, Concept of clustering and explain K-means Clustering algorithm	(OLAP) and Operational Database (OLTP).	
22	Computer Networks and C# and introduction to ASP.Net	DSE-1306F	2020-2021	<p>CO 1: To understand Flow control protocols-Sliding window protocol, One bit sliding window protocol, protocol using go back N, Protocol using selective repeat. Explain design issues, concept of routing, routing algorithms and Congestion Control algorithms. CO 2: To explain transport layer service primitives, TCP, UDP protocol.Understand session layer services, Remote Procedure Call(RPC), Presentation layer services, Concept of cryptography and types of cryptography.To explain Functions of application layer, application layer protocols (DNS, HTTP, SMTP, Telnet and FTP) and network security. CO 3: To explain Functions of application layer, application layer protocols (DNS, HTTP, SMTP, Telnet and FTP) and network security.To get knowledge different types of errors, structured & unstructured exception, to understand how to trace errors. CO 4: To understand database connection, connected & disconnected architecture, data binding to</p>	<p>CO 2: To explain transport layer service primitives, TCP, UDP protocol.Understand session layer services, Remote Procedure Call(RPC), Presentation layer services, Concept of cryptography and types of cryptography.To explain Functions of application layer, application layer protocols (DNS, HTTP, SMTP, Telnet and FTP) and network security.</p>	<p>CO 3: To explain Functions of application layer, application layer protocols (DNS, HTTP, SMTP, Telnet and FTP) and network security.To get knowledge different types of errors, structured & unstructured exception, to understand how to trace errors. CO 4: To understand database connection, connected & disconnected architecture, data binding to controls, data validations.Understand & Generate Reports from database using crystal reportGet Basic introduction to ASP.net, understand different ASP.net controls, understand concepts of Master Page</p>



				controls, data validations. Understand & Generate Reports from database using crystal report Get Basic introduction to ASP.net, understand different ASP.net controls, understand concepts of Master Page		
23	Linux OS and Artificial intelligence and Expert system	DSE-1307F	2020-2021	CO 1: To understand the linux basics- shell, kernel, general purpose utilities, directory handling commands, file handling commands CO 2: To implement basic filters, understand environment variables. CO 3: To use VI editor and its different commands. To write shell scripts and run them CO 4: To write shell scripts using different conditional and looping statements	CO 1: To understand the linux basics- shell, kernel, general purpose utilities, directory handling commands, file handling commands CO 2: To implement basic filters, understand environment variables.	CO 3: To use VI editor and its different commands. To write shell scripts and run them CO 4: To write shell scripts using different conditional and looping statements
24	Android Programming	SEC-III	2020-2021	CO1: To understand the Event driven & sequence driven programming, to explain .net framework architecture, understand assembly, namespace, garbage collector & JIT Compilers CO2: Understand data types, operators, conditional, unconditional & looping statements. To understand how to write function & procedures CO3: Understand class, object, & OOP concepts CO4: Understand different controls in window application, events & properties of controls.	CO2: Understand data types, operators, conditional, unconditional & looping statements. To understand how to write function & procedures	CO3: Understand class, object, & OOP concepts CO4: Understand different controls in window application, events & properties of controls.

(Miss Pallavi M. Dessai)



HEAD
DEPARTMENT OF B.SC. COMPUTER SCIENCE
(ENTIRE)
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