VIVEK COLLEGE OF COMMERCE
PROGRAMME NAME: B.Sc.I.T.

B.Sc.I.T. PROGRAMME OUTCOME:

A B.Sc.I.T. learner will be able to

PO1: Use logical and analytical thinking to solve conceptual and real-world problems.

PO2: Demonstrate the programming skills to improvise/re-engineer applications.

PO3: Develop industry-focused skills to lead a successful career

PO4: Effectively communicate with peers/employers and express their thinking ability using different modes of communication.

PO5: Apply the knowledge obtained and emerge as a Developer, Designer, Tester, Security Analyst, Technical Analyst, Networking related modules.

PO6: Cater to the needs of various vertical markets and provide better IT and ITes solutions.

PO7: March a step ahead and become an entrepreneur

B.Sc.I.T. PROGRAMME SPECIFIC OUTCOME

PSO1: Information Technology learner will be able to understand and apply the subjects learned at basic level, intermediate level and advanced level as they progress from first year to third year.

PSO2: The learner shall be recruited by companies enabled with IT and IT enabled services.

VIVEK COLLEGE OF COMMERCE
PROGRAMME NAME: B.Sc.I.T.

COURSE OUTCOME

F.Y.B.Sc.I.T. SEMESTER I

COURSE CODE: USIT101: IMPERATIVE PROGRAMMING (THEORY AND PRACTICAL)

After completing the course, the learner will be
CO1: Aware of the various basic programming languages.
CO2: Implement programming logic in basic problems
CO3: Interpret and logically visualize the problem domain through flowchart
CO4: Understand the working of looping, structures and pointers
CO5: Apply basic programming skills strongly to enhance and hone programming skills

COURSE CODE: USIT102: DIGITAL ELECTRONICS (THEORY AND PRACTICAL)

CO1: able to know the various concepts of digital logic
CO2: use various integrated components for better understanding of the subject
CO3: study Karnaugh maps, Boolean expression
CO4: Understand the working of flip-flops, counters, shift-registers and its applications

COURSE CODE: USIT103: OPERATING SYSTEMS (THEORY AND PRACTICAL)

CO1: aware of the importance and working of Operating system.
CO2: able to use different scheduling algorithms and understand memory management systems.
CO3: differentiate between various file systems of Windows and Unix
CO4: have basic understanding about virtualization and its concepts.

COURSE CODE: USIT104: DISCRETE MATHEMATICS (THEORY AND PRACTICAL)

CO1: able to understand set theory and its relations
CO2: use the basics of mathematical induction, graphs and trees that are applied in various domains of   Information technology and are widely applied in Data Structures and areas of Artificial Intelligence.

F.Y.B.Sc.I.T. SEMESTER II

COURSE CODE: USIT201: OBJECT ORIENTED PROGRAMMING (THEORY AND PRACTICAL)

CO1: Differentiate between procedural and object-oriented programming languages
CO2: Learn about classes, objects, constructors, inheritance, polymorphism and files
CO3: It enables the learner to use the object-oriented programming skills for all advanced programming languages

COURSE CODE: USIT202: MICROPROCESSOR ARCHITECTURE (THEORY AND PRACTICAL)

CO1: Enables learner to know about the working of the basic 8085 microprocessor
CO2: Learn and apply various instructions and operations on microprocessor
CO3: Compare about the various processor like SPARC, Pentium, Intel i3, i5 and i7

COURSE CODE: USIT203: WEB PROGRAMMING (THEORY AND PRACTICAL)

CO1: make learners aware and study basic html tags under HTML5
CO2: learn and implement php and java script programming
CO3: enhance learners web technologies skillset for creating static and dynamic websites.

VIVEK COLLEGE OF COMMERCE
PROGRAMME NAME: B.Sc.I.T.

COURSE CODE: USIT204: NUMERICAL AND STATISTICAL METHODS

CO1: Introduction of various mathematical models and numerical methods to learners
CO2: apply various methods like interpolation, iterative methods for analysis
CO2: learn various regression methods, linear programming and distribution methods which are applied in subjects like Business Intelligence in the third year.

COURSE CODE: USIT205: GREEN COMPUTING (THEORY AND PROJECT)

CO1: Learners are made aware of current issues like carbon footprint, power consumption, disposal of e-waste.
CO2: Various methods for reducing power consumption, effective usage is discussed and taught
CO3: Methods to go paperless and know various initiatives and standards for green computing
CO4: Mini project should be submitted by the learner incorporating the theoretical concepts related to green computing

S.Y.B.Sc.I.T. SEMESTER III

COURSE CODE: USIT301: PYTHON PROGRAMMING (THEORY AND PRACTICAL)

After completing the course, the learner will be
CO1: Aware of the variables, expressions, looping and conditions used in Python programming.
CO2: Implement functions, strings, lists, tuples and directories
CO3: Learn to create GUI forms and add widgets.
CO4: Use MySQL to store data.
CO5: Apply the programming skillset learnt here into various domains by having advance programming skillset of Python and usage of libraries.

COURSE CODE: USIT302: DATA STRUCTURES (THEORY AND PRACTICAL)

CO1: learn about various data structure classification, data types, their complexities
CO2: know and implement array, linked list, stack and queue.
CO3: implement trees, various hashing techniques and graph for various applications
CO4: understand various sorting and searching techniques used in data structures

COURSE CODE: USIT303: COMPUTER NETWORKS (THEORY AND PRACTICAL)

CO1: study various data communication standards, topologies and terminologies
CO2: describe how signals are used to transfer data and communication aspects between nodes
CO3: learn and practically demonstrate the TCP/IP protocol suite

COURSE CODE: USIT304: DATABASE MANAGEMENT SYSTEMS (THEORY AND PRACTICAL)

CO1: study the basics of database system and its purpose
CO2: design conceptual model of a database using ER modelling for real life applications
CO3: use relational algebra to construct queries and will be able to apply complex queries.
CO4: build indexing mechanism for efficient retrieval of data from database systems

VIVEK COLLEGE OF COMMERCE
PROGRAMME NAME: B.Sc.I.T.

COURSE CODE: USIT305: APPLIED MATHEMATICS (THEORY)

CO1: know and use matrices and complex numbers
CO2: Apply Laplace and Inverse Laplace transforms to various applications
CO3: Apply integral, double integral to various applications
CO4: be aware of various error functions

S.Y.B.Sc.I.T. SEMESTER IV

COURSE CODE: USIT401: CORE JAVA (THEORY AND PRACTICAL)

After completing the course, the learner will be
CO1: Aware of the history and architecture of Java
CO2: learn about various data types, control flow, classes, inheritance, exceptions and event handling
CO3: use object-oriented concepts for problem solving real-life applications
CO4: use IDE to test java programs

COURSE CODE: USIT402: INTRODUCTION TO EMBEDDED SYSTEMS (THEORY AND PRACTICAL)

CO1: differentiate between general purpose and embedded systems
CO2: know the characteristics and quality attributes of embedded systems
CO3: learn 8051 programming concepts to implement in hardware
CO4: study design and development of embedded systems

COURSE CODE: USIT403: COMPUTER ORIENTED STATISTICAL TECHNIQUES (THEORY AND PRACTICAL)

CO1: Use various statistical techniques like mean, median, mode, skewness, kurtosis for data analysis
CO2: learn R programming language for various statistical findings
CO3: learn and apply statistical theory, least square methods and correlation theory

COURSE CODE: USIT404: SOFTWARE ENGINEERING (THEORY AND PRACTICAL)

CO1: basic knowledge and understanding of systems
CO2: ability to apply software engineering principles and be aware of software models.
CO3: understanding various approached to verification and validation of software including testing, measurements and estimation of software products.

COURSE CODE: USIT405: COMPUTER GRAPHICS AND ANIMATION (THEORY AND PRACTICAL)

CO1: explain and understand the various basic concepts in graphics like viewing, projection, transformation, scan conversion
CO2: build simple animation projects by implementing various color models, concepts of planar surfaces and animation
CO3: learn image processing basics and its methods like filtering and smoothing as its applications

VIVEK COLLEGE OF COMMERCE
PROGRAMME NAME: B.Sc.I.T.

T.Y.B.Sc.I.T. SEMESTER V

COURSE CODE: USIT501: SOFTWARE PROJECT MANAGEMENT (THEORY AND PRACTICAL)

After completing the course, the learner will be
CO1: understand the various types of projects
CO2: know project evaluation, planning and build an overview of the different tools, techniques and technologies used in project management

COURSE CODE: USIT502: INTERNET OF THINGS (THEORY AND PRACTICAL)

CO1: understand the design and architecture of IoT
CO2: be aware of the various IoT enabled and connected devices
CO3: be known with the ethical factors with respect to IoT devices

COURSE CODE: USIT503: ADVANCED WEB PROGRAMMING (THEORY AND PRACTICAL)

CO1: understand the .NET framework.
CO2: apply form fundamentals and controls to design web pages
CO3: build web pages using various styling mechanism, avoiding common errors
CO4: use data binding techniques and apply AJAX controls in web pages.
CO5: build a website as a whole using the skillset

COURSE CODE: USIT505: LINUX SYSTEM ADMINISTRATION (THEORY AND PRACTICAL)

CO1: aware of RHEL 6 Server Administration concepts and ways
CO2: know various shells and commands used in CLI as well as GUI
CO3: learners will be able to configure various servers like DHCP, NFS, FTP, APACHE WEBSERVER etc. in real life applications and domains
CO4: able to write small shell scripts , set up installation servers and know about high availability clusters.

COURSE CODE: USIT506: ENTERPRISE JAVA (THEORY AND PRACTICAL)

CO1: apply servlets, sessions, cookies, beans and Java Server Pages to design server-side applications.
CO2: able to write JPA applications and build hibernate applications for real problems

T.Y.B.Sc.I.T. SEMESTER VI

COURSE CODE: USIT601: SOFTWARE QUALITY ASSURANCE(THEORY)

CO1: apply the concepts of quality at building a software
CO2: use benchmarking metrics to measure quality in software products.
CO3: apply verification and validation methods to ensure continuous quality improvement

COURSE CODE: USIT602: SECURITY IN COMPUTING (THEORY AND PRACTICAL)

C01: understand network security at various levels of implementation
CO2: apply design principles for security in storage, database etc.
CO3: build secure networks.
CO4: be aware of wireless security, physical security and Cloud security

COURSE CODE: USIT603: BUSINESS INTELLIGENCE (THEORY AND PRACTICAL)

CO1: know about various business intelligence mathematical models

CO2: develop an interest towards data and its purpose

CO3: show desire to learn and implement classification and clustering algorithms

CO4: apply knowledge management approaches and develop an intelligent system to facilitate better decision-making business intelligence systems.

COURSE CODE: USIT604: PRINCIPLES OF GEOGRAPHIC INFORMATION SYSTEMS (THEORY AND PRACTICAL)

CO1: be aware of various fundamentals of Geographic information systems

CO2: understand spatial data and query handling techniques

CO3: apply visualization tools and techniques for better spatial analysis

COURSE CODE: USIT606: IT SERVICES MANAGEMENT(THEORY)

CO1: understand services, principles, strategies and risk involved

CO2: have thorough study and acquire knowledge about ITIL foundation and secondary level strategies in knowing the complete background of service management in IT and its applications.