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Class and Semester	Paper	Course Outcome
F.Y.B.Sc(I.T.) Sem I	Discrete Mathematics	Students will be able to:- • Write an argument using logical notation and determine is or is not valid. • Understand the basic principles of sets and operations on sets. • Demonstrate the ability to write and evaluate a proof or outline the basic structure of and give examples of each proof technique described. • Apply counting principles to determine probabilities. • Demonstrate different traversal methods for trees and graphs.
F.Y.B.Sc(I.T.) Sem I	Operating System	• Students will gain in-depth knowledge about the operating system. • Students can Define, restate, discuss, and explain the policies for scheduling ,Deadlocks, Memory Management. Synchronization, System calls. And File Systems. • Students can understand The former treats & the standard principles of single processor system, including process, synchronization, I/O, deadlocks, Memory Management, File

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		Management systems, security and so on. • Student will try to study the need for special purpose operating system with the advent of new emerging technologies.
FYBSc(IT) SEM-I	Digital Electronics	Students will be able :- • To understand and examine the structure of various number systems and its application in **digital** design. • The ability to understand, analyze and design various combinational and sequential **circuits**.
F.Y.B.Sc(I.T.) Sem I	Imperative programming	Students can:- • Illustrate the flowchart and Algorithm to the given problem • Understanding basic structure of the C programming ,declaration and usage of variables • Write C programs using operators • Exercise conditional and iterative statements to write c programs • Write C programs using pointers to access arrays,strings,functions
F.Y.B.Sc(I.T.) Sem I	Communication Skills	Students can:- • Display Competence in Oral, written and

		visual communication. • Develop confidence in explaining one's thoughts and ideas in a most effective manner. • Understand style, format and etiquettes to keep pace with the communication needs of the modern world.

Class and Semester	Paper	Course Outcome
F.Y.B.Sc.(I.T.) sem II	Object Oriented Programming	Students will be able to:- • Understand the features of C++ supporting object oriented programming. • Understand how to produce object oriented software using C++ • Understand how to apply the major object oriented concepts to implement object oriented programs in C++, encapsulation, inheritance and polymorphism. • Understand advance features of C++ specifically stream I/O, templates and operator overloading.
F.Y.B.Sc.(I.T.) sem II	Microprocessor Architecture	Students will be able to:- • To introduce 8085 architecture and programming in assembly language. • To introduce basic

		concepts of interfacing memory and peripheral devices to a microprocessor. • To introduce serial and parallel bus standards. • To introduce various advanced processor architectures such as 8086, Pentium and multicore Processors.
F.Y.Bsc.(IT) Sem-II	Green Computing	Student will be able to :- • understand how to improve environmental Sustainability. • Describe awareness among stakeholders and promote green agenda and green initiatives in their working environments leading to green movement. • Identify IT Infrastructure management and Green Data centre Metrics for Software development. • To understand the principles and practices of Green Computing. • To measure the Maturity of Sustainable ICT world. • To understand how Green Computing is adopted or deployed in enterprises.

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F.Y.B.Sc.(I.T.) sem II	Numerical and statistical methods	Upon completion of the course students shall be able to:= • Recognize the error in the number generated by the solution. • Compute solution of algebraic and transcendental equation by numerical methods like Bisection method and Newton Rapshon method. • Apply method of interpolation and extrapolation for prediction. • Recognize elements and variable in statistics and summarize qualitative and quantitative data. • Calculate mean, median and mode for individual series. • Outline properties of correlation and compute Karl-Pearson's coefficient of correlation.
F.Y.B.Sc.(I.T.) sem II	Web programming	Students can :- • Design and implement static and dynamic web pages. • Students will be able to implement interactive web pag using HTML5,CSS & Java Scripts. • Students will be able to build Dynamic wbpages using PHP

		programming and Database connectivity. • To gain ability to develop responsives webapplications.

Class and Semester	Paper	Course Outcome
S.YBSc.(IT) SEM-III	Applied Mathematics	Students will be able to:- • Compute a given integral using the most efficient method • Use integrals to formulate and solve application problems in science. • Construct and plot parametric and polar curves
S.YBSc.(IT) SEM-III	Computer Networks	Students will be able to:- • Build an understanding of the fundamental concepts of computer networking. • Will be Familiarize with the basic taxonomy and terminology of the computer networking area. • Clear concepts of advanced networking, preparing the student for entry Advanced courses in computer networking. • gain expertise in same specific areas of networking such as

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		the design and maintenance of individual networks
S.Y.BSc.(IT) SEM-III	Data Structures	Students will be able :- • To introduce the fundamental concepts of data structures • To emphasize the importance of data structures in developing & implementing efficient algorithms. • To understand basic concepts about Stacks, Queues, Lists, Trees, Heaps, Hash table and Graphs . • To understand concepts about searching & techniques.
S.Y.BSc.(IT) SEM-III	Database Management System	Students will be able :- • To describe the features of dbms system and rdbms. • Design the model of database using ER modelling for real life applications • To introduce basic concepts of SQL. • To enhance the knowledge for advance SQL and SQL connectivity through JDBC. • To provide the overview of physical databse system by discussing database indexing technique and storage

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		techniques.
SYBSc(I.T) Sem III	python programming	Students can:- • Design real life situational problems and think creatively about solutions of them. • Apply a solution clearly and accurately in a program using Python. • Explain how to design GUI Applications in Python and evaluate different database operations

Class and Semester	Paper	Course Outcome
SYBSc(I.T.) Sem IV	Computer Oriented Statistical Technique	Students can :- • Recognize the error in the number generated by the solution • Calculate mean, median and mode for individual series
S.Y.BSc.(IT) SEM-IV	Software Engineering	Students will be able to :- • To understand basic software engineering methods and practices and their appropriate application. • Understand the software process models such as the waterfall, spiral and evolutionary models. • Role of project management including

		planning, scheduling and risk management. • Discuss data models, object models, context models and behavioral models. • Understand of different software architectural styles and Process frame work. • Understand of implementation issues such as modularity and coding standards. • Understand to verification and validation including static analysis and reviews. • Describe software measurement and software risks. • Discuss software evolution and related issues such as version management. • Understand on quality control and how to ensure good quality software.
S.Y.BSc.(IT) SEM-IV	Computer Graphics and animation	Students will be able to :- • To learn basic principles of 2D and 3D computer graphics. • To understand how to scan convert the basic geometric primitives • To understand Mapping from world coordinates to device coordinates, clipping and projections

		• To comprehend & analyze the fundamentals of animation.
S.Y.BSc.(IT) SEM-IV	Core Java	Students will be able to :- • List and Use of OOP's. • Write program using Java Collection Api as well as the Java standard class library. • Solve inter-disciplinary applications using concept of inheritance. • Apply JDBC to provide a program level for interface for communicating with the db using java programming.
SYBSc IT Sem IV	Introduction to Embedded Systems	Students will be able to :- • Describe the differences between the general computing system and the embedded system, also recognize the classification of embedded systems. • Become aware of the architecture of the processor and its programming aspects (assembly Level) • Become aware of interrupts, hyper threading and software optimization. • Design real time embedded systems using the concepts of RTOS. • Analyze various

		examples of embedded systems based on processor

Class and Semester	Paper	Course Outcome
T.Y.BSc.(IT) SEM-V	Enterprise Java	Students will be able to :- • To provide a sound foundation to the students on concepts , precepts and practices in a field that is immense concern to the industry & business. • Implementing J2EE Applications, Database connection using JDBC , API Servlets, Java server pages. • Able to implement the concepts of Hibernate applications.
T.Y.BSc.(IT) SEM-V	Linux System Administration	Students will be able to :- • Understand roles and responsibilities of Linux System Administration. • Install and Configure the Linux OS. • Manage the resources and security of a computer running Linux at a basic level. • Make effective use of Linux utilities and Scripting Languages. • Tomanage Connection between Windows OS to Linux OS.

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T.Y.BSc.(IT) SEM-V	Software Project Management	Students will be able to :- • Understand nature of s/w development and s/w life cycle process models ,agile s/w development, SCRUM and other agile practices. • To Explain methods of capturing ,specifying ,visualizing, and analyzing ,s/w requirements. • To understand concepts and principles of s/w design and user – centric approach and principles of effective user interfaces. • To understand need of project management and project management lifecycle. • To understand project scheduling concept and risk management associated to various type of projects
TYBSc IT Sem V	Internet of things	Students can:- • Apply the concepts of IOT. • Identify the different technology. • Apply IOT to different applications. • Analysis and evaluate protocols used in IOT. • Design and develop smart city in IOT. • Analysis and evaluate

		the data received through sensors in IOT
TYBSc IT SEM V	Advanced Web Programming	Students can:- • Learn MS.NET framework developed by Microsoft. • You will be able to using XML in C#.NET specifically ADO.NET and SQL server • Be able to understand use of C# basics, Objects and Types, Inheritance • To develop, implement and creating Applications with C#.

Class and Semester	Paper	Course Outcome
T.Y.BSc.(IT) SEM-VI	Software Quality Assurance	Students will be able:- • To learn systematic approach to the development, operation, maintenance & retirement of software. • Student learn how to use available resources to develop the software, reduce the cost of software and how to maintain quality of software. • Methods and tools of testing and maintenance of

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		software's
T.YBSc.IT ,SEM-VI	Business Intelligence	Students can:- • Identify the major frameworks of computerized decision support: decision support systems (DSS), data analytics and business intelligence (BI). • Explain the foundations, definitions, and capabilities of DSS, data analytics and BI. • Demonstrate the impact of business reporting, information visualization, and dashboards. • Explain data mining, neural networks, support vector machines, text analytics, text mining, sentiment analysis, web mining, web analytics, social analytics, social network analysis. • Outline the definitions, concepts, and enabling technologies of big

		data analytics.
TYBSc IT Sem VI	Security in Computing	Students can:- • identify some of the factors driving the need for network security • identify and classify particular examples of attacks • define the terms vulnerability, threat and attack • identify physical points of vulnerability in simple networks • compare and contrast symmetric and asymmetric encryption systems and their vulnerability to attack, and explain the characteristics of hybrid systems.
T.YBSc.IT ,SEM-VI	Principles of GIS	Students can:- • Comprehend fundamental concepts and practices of Geographic Information Systems (GIS) and advances in Geospatial Information Science and Technology (GIS&T). • Apply basic graphic and data visualization concepts such as color theory, symbolization, and use of white space.

		• Demonstrate organizational skills in file and database management. • Give examples of interdisciplinary applications of Geospatial Information Science and Technology. • Demonstrate confidence in undertaking new (unfamiliar) analysis using GIS, troubleshoot problems in GIS, and seek help from software/website help menus and the GIS community to solve problems.
T.YBSc.IT ,SEM-VI	Cyber Laws	Students will be able :- • to help the studentsget acquainted with various laws that govern the informational technology industry • The students get a working knowledge about concepts like hacking, ethical hacking, piracy, IPR, cyber terrorism,etc. • The course teaches various offence regarding cyber law and relevant penalies.

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Program specific Outcome BSc(IT) :

- To think analytically, creatively, and critically in developing robust, extensible and highly maintainable technological solutions to simple and complex problems.
- Identify Information Technology related problems, analyze them and design the system or provide the solution for the problem.
- Apply current technical concepts and pratices in the core Information Technologies of Human Computer interactions, information management, programming, networking and web systems and technologies.
- To be capable of managing complex IT projects with consideration of the human, financial, and environmental factors.

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