BTPH 101 A
Engineering Physics

1. Augmenting the students into theoretical concepts required for various engineering courses.
2. Knowledge of various physical processes and their applications.
3. An ability to identify, formulate, and solve engineering problems.
4. Understanding of general properties of materials and their applications.

BTPH 102 A
Engineering Physics Laboratory

1. An ability to apply knowledge of Physical processes & Materials Physics.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component, or process to meet desired specific needs within the framework of sustainability.
4. An ability to identify, formulate, and solve engineering problems.

BTAM 101 A
Engineering Mathematics-I

1. To understand the basic concept of Curve tracing & Curvature and able to use it for tracing of standard curves and finding curvatures of in different curves.
2. To understand the basic concept of Rectification of standard curves; Areas bounded by these curves; and also the concept of centre of gravity and moment of inertia.
3. To understand the basic concept of partial differential equations and also able to use its applications in different fields of engineering
4. To understand the concept of double and triple integral and will learn how to evaluate them and use in practical problem.
5. To understand the basic concept of Vector Calculus like differentiation of vectors, Vector differential operators (Del, Gradient, Divergence and Curl) and will able to draw their physical interpretations and their uses in engineering's problems.

BTHU 101A
Communicative English

1. Understand factual and implied meaning of written text.

2. Use productively the vocabulary learnt in the lessons in appropriate context.

3. Practice a prescribed set of grammar items in suitable context.

4. Explain Ideas and building up of arguments in convincing manner.

5. Produce effectively different forms of business writing such as letter, memorandum, email, report writing etc.

BTHU-102A
Communicative English Laboratory

1. Practice /Acquire Standard English sounds and pronunciation.

2. Develop a knack for structured public talk and group discussion.

3. Demonstrate fluency in speech without much hesitation in acceptable accent.

4. Receive and understand spoken material accurately.

5. Develop ready access to topical vocabulary and idiomatic expressions of colloquial speech.

BTEE 101 A
Basic Electrical and Electronics Engineering

1. Understand with the basic concepts of AC, DC and Magnetic Circuits.

2. Understand the concept of Transformer and rotating electrical machines.

3. Understand the concept of rectifier, transistors and digital electronic devices.

4. Analyze basic concept of transducer and semiconductor devices.

BTEE 102 A
Basic Electrical and Electronics Engineering Laboratory

1. The students will be able to verify ohm's law and Kirchoff's laws practically.

2. To understand the working of DC & AC circuits, transformer, motors, thermo couples,

3. LVDT and measuring instruments practically.

4. To understand working of PN junction, gates and transistors practically

HVPE 101A
Human Values & Professional Ethics

1. Understand the fundamental issues relating to the happiness and real success in both personal and professional life.

2. Analyze their own belief to remove confusion and complexes in order to bring self-confidence, clarity and conviction.

3. Develop right understanding about oneself and rest of the existence for sustained human happiness and prosperity.

4. Refer to natural acceptance in order to understand harmony at all the levels of existence i.e. self, family, society and nature.

5. Visualize an appropriate implementation of the knowledge in their respective streams to ensure mutually enriching and sustainable systems

BTMP 101 A
Manufacturing Practice

1. Student will be able to use the techniques, skills and modern engineering tools necessary for engineering practice and ability to function effectively in team or group and to identify, formulate and solve engineering problems.

2. Student will be able to get the fundamentals of wood working has to know about timber, defects in timber, seasoning of wood and other carpentry materials, wood working tools, carpentry operations and the method of making common types of joints.

3. Student will be able to get the knowledge of moulding materials, use of cores, melting furnace, tools and equipment used in foundry shops and also able to prepare small sand moulds and casting.

4. Student will be able to demonstrate a good basic understanding of machine shop practices, cutting tools and will be able to set up machines, grinders and operate lathe, vertical milling machine and machining tools.

5. Students will be able to Weld in (flat, horizontal, vertical, and overhead positions) using the basic welding processes and also able to know about various welding joints/defects.

6. Students will be able to get the knowledge of sheet metal forming and joining operations, joints, soldering and brazing processes.

7. Student will be able to get the knowledge of electrical wiring, preparation of PCBs involving soldering applied to electrical/electronic applications in electrical shop. Student will be able to get the knowledge of fitting practice and tools used in fitting shop.

BTCH 101 A

Engineering Chemistry

1. Basic Understanding of water, its treatment, Corrosion of metals, their types & Control measurements to minimize corrosion.
2. Ability to explain various types of spectroscopy, basic understanding of equipments to be used & their applications.
3. Ability to explain NMR spectroscopy, interpretation of NMR spectra with respect to small molecules.
4. Knowledge of Introductory overview of Green chemistry, twelve principles of Green chemistry, their explanation & basic understanding of concept of Nano chemistry including their future perspectives.
5. Basic understanding of Petrochemicals, various processes involved in their separation & classification of Crude-oil.
6. Basic understanding of Polymers, polymerization, its types & basic introduction of polymer reinforced composites.

BTCH 102 A
Engineering Chemistry Laboratory

1. Ability to analyze the total hardness of water with the help of titration.
2. Ability to analyze the quality of oil & coal by determining its components.
3. Basic understanding to prepare polymers in the laboratory.
4. Basic understanding of the concept of chromatography & will be able to separate the mixture of compounds by Thin-layer chromatography.
5. Ability to take safety measures against fire hazards by knowing properties of flammable liquids.

BTME 101A
Elements of Mechanical Engineering

1. Students become familiar with the fundamentals of mechanical and thermal properties of materials.
2. A fundamental understanding of Laws of thermodynamics and their application to wide range of systems.
3. Familiarity with efficiencies of Heat Engines and other Engineering Devices.
4. Students have acquired the knowledge of suitable engineering materials in different applications.

BTCS 101A
Fundamentals of Computer Programming and IT

1. To understand the fundamental hardware components that make up a computer's hardware as well as software that helps the computer to perform tasks.
2. To accomplish the basics of word, spreadsheet, presentations and exposure of Internet technology and its applications.
3. To create flowcharts, write syntactically correct pseudo code/ algorithm to solve small programming problems.
4. To choose significant data types, decision structures, control structure and functions in creation of C++ program.
5. To solve programming problems using object oriented programming concepts and write programs that include files for input/output.

BTCS102 A
Fundamentals of Computer Programming and IT

1. To familiarize and understand various components of computer system's to perform different tasks.
2. To understand window explorer and working with control panel.
3. To understand the working of the internet that include the use of protocols. domains, IP addresses.
4. To understand and apply various tools line MS word, MS Excel and MS PowerPoint.
5. To understand and solve various C++ programs using oops concepts criteria.

EVSC 101A
Environmental Science

1. Basic understanding of concept of Multidisciplinary nature of Environmental Science & basic problems of exploitation & environmental effects of using Natural Resources.
2. Ability to identify threats to Bio-diversity and their potential solutions.
3. Ability to get overview of various Ecosystems, their structure & functions.
4. Awareness about causes, effects & control measures of various types of environmental Pollution.

5. Basic understanding of relationship among Social-issues, human population & environment.

BTME 102 A
Engineering Drawing

1. Students have acquired the knowledge of drawing national and international standards and practice being followed and letter writing skills on the drawing sheet manually.
2. Students will be able to visualize geometrical objects and to certain extent the 3-D machine parts by reading 2-D multi view orthographic projections and vice versa.
3. Students will be able to understand general instructions related to Theory of Orthographic Projection of points, lines, planes and solids as per the BIS codes prevalent to drawing practice. Section of solids, intersection and development of surfaces, isometric projection and orthographic projection of simple solids/blocks will further upgrade the basic understanding and visualization of objects.
4. Students will be able to understand true shapes and apparent shapes of objects in the orthographic views.
5. Students will be able to understand different types of scales and their classification.

BTME 103 A
Engineering Computer Graphics Laboratory

1. Visualize Science in the form of technical graphics, geometrical objects and to certain extent the machine parts.
2. Draw 2D sketches of machine parts using computer graphics software.

BTAM 102A
Applied Mathematics-II

1. To understand the basic concepts of Ordinary Differential Equations of different types and different orders and will learn how to solve them by various methods. They will able to apply these Ordinary Differential Equations in different field like electric R-L-C circuits, Deflection of beams, Simple harmonic motion, and Simple population model etc.

2. To understand the basics concepts of linear Algebra and must also able to learn to apply these concepts in finding Eigen values, Eigen vectors, solution of linear algebraic equations etc.

3. To understand the basics concepts of convergence and divergence of a series and checking of convergence and divergence of given series by various methods.

4. To understand the basics concepts of complex numbers and elementary functions of complex variable. They must also be able to understand

3rd Semester

BTCS-301A   Computer Architecture & Organization

I.   To understand how computer hardware has evolved to meet the needs of multi-processing systems.
II.   To understand the design of control unit.
III.   To study the major components of a computer including CPU, memory, I/O and storage.
IV.   To understand design principles in instruction set design including RISC architectures V. To understand parallelism both in terms of a single processor and multiple processors.

BTAM-302A Mathematics-III

I.   Calculate the coefficients of both the complex and the real Fourier series for a variety functions, and to use Laplace transform to solve ordinary differential equations.
II.   Understand formation of Partial Differential Equations, linear Partial Differential Equations, and Homogeneous Partial Differential Equations with constant coefficients and Apply standard techniques of linear algebra, complex analysis and calculus.
III.   Solve the Laplace, heat and wave equations for a variety of boundary conditions in domains of simple geometry and with simple boundary conditions; the techniques available will include, separation of variables, Laplace and Fourier Transform methods.
IV.   Understand Gauss – elimination method, gauss- Jordan method, Gauss- Seidel iteration method, Rayleigh's Power method for Eigen values and Eigenvectors and Solutions of Initial values problems using Eulers, modified Eulers method and Runge- kutta (upto fourth order) methods.
V.   Apply various probability distributions to solve practical problems and construct confidence intervals using sampling analysis and testing of hypothesis.

BTCS-303A Digital Circuits & Logic Design

I.   Understand the significance and use of different number systems, weighted & non-weighted codes along with their conversions. Learn Boolean algebra& its laws.
II.   Minimize Boolean expressions using different techniques: Algebraic method, K- Map Technique and QM Methods, develop basic understanding of Logic gates and universal behaviour of NAND/NOR gates.
III.   Obtain knowledge of combinational circuits and design procedure of various combinational logic circuits like Adder, Sub tractor, Comparator, MUX/DEMUX, Parity checker etc. Classification of memory devices and to develop understanding about their Organization.
IV.   Know about different sequential circuits like Flip-flops, Counters & their types. To design counters and know about working of shift registers.
V.   Know need of signal conversion, Study different types of signal convertors: ADC and DAC along with their working.

BTCS-304A Data Structures

I.   Understand how various data structures are represented in memory and are used by algorithms.
II.   Understand the concept of time and space complexity and analyze them for different algorithms and also the ability to estimate programming time using Big O notation.
III.   Assess how the choice of data structures impact the performance of program.
IV.   Design and employ appropriate data structures for solving computing problems;
V.   Implement searching and sorting algorithms in solving larger problems

BTCS-305A Object Oriented Programming Using C++

I.   Gain the basic knowledge on Object Oriented concepts and to demonstrate the differences between traditional imperative design and object-oriented design.
II.   Apply the concepts of class and object, data encapsulation, inheritance, operator overloading, Type Conversion and polymorphism to large-scale software
III.   Understand the basics of exception handling, Template concepts, Function templates, class templates, File streams, hierarchy of file stream classes, error handling during file operations
IV.   Declare and initializing pointers, accessing data through pointers, pointer arithmetic, memory allocation (static and dynamic), dynamic memory management using new and delete operators
V.   Design and develop object-oriented computer programs. Ability to implement features of object oriented programming to solve real world problems

BTCS306A Data Structures Lab

I.   Implement basic data structures such as arrays and linked list.
II.   Programs to demonstrate fundamental algorithmic problems including tree traversals, graph traversals and shortest path.
III.   Implement various searching and sorting algorithms.
IV.   Programs to demonstrate the implementation of various operations on stack and queue.

BTCS-308A Digital Circuits & Logic Design Lab

I.   Develop basic understanding of Logic gates and universal behaviour of NAND/NOR gates.
II.   Obtain knowledge of combinational circuits and design procedure of various combinational logic circuits
III.   Obtain knowledge of different Flip-flops, their working and Truth Table Verification.
IV.   Obtain knowledge of Synchronous and Asynchronous Counters and their heir working.
V.   Study different types of ADC and DAC along with their working.

BTCS-309A Object Oriented Programming Using C++ Lab

I.   Able to apply an object oriented approach to programming and identify potential benefits of object-oriented programming over other approaches

II.   Able to reuse the code(Inheritance) and write the classes which work like built-in types(Integer, Float, Character)

III.   Able to design applications which are easier to debug, maintain and extend.

IV.   Able to apply object-oriented concepts (inheritance, data abstraction, encapsulation, operator overloading and polymorphism etc) in real world applications.

V.   Able to design small level project using object oriented programming concepts(Class template, file stream, error handling)

4th Semester

BTCS-401A Operating System

I.   Identify the role of Operating System.To understand the design of control unit.

II.   Understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems

III.   Describe the role of paging, segmentation and virtual memory in operating systems. Generation of logical and physical addresses for problems related to memory management.

IV.   Defining I/O systems,Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

V.   Description of protection and security and also the Comparison of UNIX and Windows based OS.

BTCS-402A Discrete Structures

I.   Understand the necessary back ground of discrete structures with particular reference to the relationships between discrete structures and their data structure counterparts including algorithm development and use logical notation to define and reason about fundamental mathematical concepts such as sets, relations, functions, Hashing functions and integers.

II.   Model, analyse and apply computational processes using analytic and combinatorial methods such as permutations and combinations and understand Recurrence relations, generating functions and applications.

III.   Understand elementary properties of modular arithmetic and explain their applications in Computer Science and apply graph theory models of data structures, trees to solve computer science problems.

IV.   Remember elementary mathematical arguments, logic and identify fallacious reasoning and understand concepts of Boolean algebra.

V.   Understand and apply principles of abstract algebra viz., group, ring and field.

BTCS-403A Computer Network-I

I.   To study, analyze and understand the terminologies involved in networking by exploring insight to layers, interface, protocol, service, type of networks, hardware technologies used, signals and Models: OSI and TCP/IP.

II.   To explain and analyze the preparation and transmission of Data, understand the protocols and procedures of flow control, error and access control.

III.   To interpret the concept of IPv4 addressing and subnetting, subsequently applying the same for subnet design as per requirement of an enterprise.

IV.   To study routing, congestion, connection establishment, connection termination and crash recovery protocols.

V.   To identify and study the protocols that are involved in web access, file sharing, name.

BTCS-404A Microprocessor and Assembly Language Programming

I. Draw a block diagram and pin diagram of 8085 microprocessors, 8086 microprocessors. Discuss instruction cycle (i.e., fetch/decode/execute) and relate the instruction cycle to what actions occur for various instruction types using a block diagram of a microprocessor.

II. Explain basic binary operations, buses, registers, ALU, Timing controls, flags, addressing modes and interrupt control that interconnect with each other.

III. Perform the programs using the various addressing modes and data transfer instructions of the 8085 microprocessor and run their program on the training boards

IV. Design timing diagrams, analyse the different data transfer modes, 8251 I/O processor and peripheral interfacing of 8255.

V. Evaluate the real-world control problems such as traffic light signal, stepper motor controller, temperature control, Motorola 68000 and all Pentium and keyboard 7 segment display.

BTCS-405A System Programming

I. To identify the role of different types of software in system programming.

II. To understand and compare single pass and two pass assembler. Show the use of SYMTAB and OPTAB.

III. To understand the design of macroprocessor. USE LEX and YACC tools.

IV. To identify the compiler phases. Construct small/part of compiler.

V. To understand and compare various types of editors, linkers and loaders.

BTCS-406A Operating System Lab

I. Perform Installation process of various operating systems.

II. Demonstrate virtualization, installation of virtual machine software and installation of operating systems on virtual machines.

III. Ability to create, view file directories and process related commands in linux.

IV. Understand the basics of shell programming.

BTCS-407A Computer Network-I Lab

I. To understand components of desktop, laptop and write latest specifications of desktop and laptop.

II. To familiarize with various transmission media and prepare straight and cross cables using crimping tool and connectors.

III. To have an exposure of network components devices and implement various topologies such as Ring, Bus, Star etc. physically using trainer kit.

IV. To configure TCP/IP protocol in Windows, Linux and implement resource sharing.

V. To perform subnet planning as per requirements of an enterprise and implement the same with proper testing.

BTCS-408A Microprocessor and Assembly Language Programming Lab

    I.   Identify the basic element and functions of microprocessor.
    II.   Describe the architecture of microprocessor and its peripheral devices.
    III.   Demonstrate fundamental understanding on the operation between the microprocessor.
    IV.   Demonstrate fundamental understanding on the operation interfacing devices.
    V.   Complete the experiments in laboratory and present the technical report.

BTCS-409A System Programming Lab

    I.   Create a menu driven interface for displaying contents of a file.
    II.   To create symbol table for high level language.
    III.   Implementation of single pass assembler on a limited set of instructions.
    IV.   Exploring various features of debug command.
    V.   Understand the use of LEX and YACC tools.

5th Semester

BTCS-501A Computer Networks-II

1. Implement inter switch communication and VLANs.

2. Implement various routing protocols for IPv4 and IPv6.

3. Implement traffic filtering using ACL.

4. Implement and understand adhoc networks.

5. Design and understand cellular system.

BTCS-502A Data Base Management System

1. Describe DBMS architecture, physical and logical database designs, database modeling, relational, hierarchical and network models.

2. Understand and apply Relational Model in Database design, Structured query language (SQL) for database definition and database manipulation.

3. Understanding different transaction processing concepts and use different concurrency control techniques.

4. Understanding different types of databases such as object oriented and distributed databases.

5. To understand different types of database failures and techniques to recover from such failures.

BTCS-503A Algorithm Analysis and Design

1. Understand and learn the basics of design and analysis of an algorithm.

2. Use the concept of Dynamic programming, Backtracking, Branch and Bound, Greedy algorithm to solve computing problems.

3. Ability to estimate programming time using Asymptotic notations.

4. Understanding the algorithms application in solving real life problems

5. Interpretation of the basics of the NP-completeness and analyse NP-complete by using polynomial time reductions

BTCS-504A Theory of Computation

1. Understanding of the basic kinds of finite automata's and their capabilities.

2. Determine the relation between regular expressions, automata, languages and grammar with formal mathematical methods.

3. Understanding of regular and context-free languages. Languages and grammar with formal mathematical methods, as well as the use of formal languages and reduction in normal forms.

4. Design push down automata and Turing machines performing tasks of moderate complexity

BTCS-511A Java Programming

1. Understand the use of data types, variables and various control statements.

2. Understand methods, classes and inheritance and its use.

3. Understand the multithreaded programming

4. Understand development of JAVA applets Vs. applications.

5. Understand the connection control and database connectivity

BTCS-512A Network Programming

1. Understand TCP/IP protocol.

2. Understand environment variables.

3. Understand and implement IPC under UNIX environment.

4. Understand and implement socket programming

BTCS-513A Linux Server Administration

1. Being able to install Linux based OS in machines

2. Become proficient in command line based system administration in Linux

3. Gain the ability to create and manipulate permissions for different users in a Linux based OS

4. Get clear concept of the file system structure of Linux based OS

5. Effectively learn to install and configure a number of different servers in a Linux based OS learn to troubleshoot different server problems

BTCS-514A Python Programming

1. To develop proficiency in creating applications using basic constructs of Python.

2. To be able to understand the various data structures available in Python programming language and apply them in solving computational problems.

3. To be able to do testing and debugging of code written in Python.

4. To be able to understand OOP concepts and text filtering with regular expressions.

5. To be able to understand network traffic analysis and use of Python in this domain.

BTCS-505A Computer Networks-II Laboratory

1. Design network and implement server.

2. Design and implement inter switch communication.

3. Configure router for routing, PPP and MLPPP and PPPoE access.

4. Implement traffic filtering using ACL

5. Configure wireless adhoc networks.

BTCS-506A DBMS Laboratory

1. Describe DBMS architecture, physical and logical database designs, database modeling, relational, hierarchical and network models.

2. Understand and apply structured query language (SQL) for database definition and database manipulation.

3. Understanding of normalization theory and apply such knowledge to the normalization of a database

4. Understand various transaction processing, concurrency control mechanisms and database protection mechanisms

5. Understand Distributed Databases, Techniques for Distributed Database design and types of Recovery Techniques.

BTCS-507A Algorithm Analysis and Design Laboratory

1. Identify the problem given and design the algorithm using various algorithm design techniques.

2. Implement various algorithms in a high level language.

3. Analyze the performance of various algorithms.

4. Compare the performance of different algorithms for same problem

BTCS-515A Java Programming Laboratory

1. Develop problem-solving and programming skills using object oriented programming concept.

2. Design and implement a well bounded application to demonstrate the methods of threads and string handling.

3. Implement the networking features and database connectivity. Design and implement mouse and keyboard events. Implement various string and exception handling methods

BTCS-516A Network Programming Laboratory

1. Implement network management commands.

2. Understand system calls and implement enter process communication, message queues.

3. Implement pipes and process control.

4. Implement file handling.

5. Implement socket programming.

BTCS-517A Linux Server Administration Laboratory

1. Practically able to install Linux based OS in machines

2. Understand the command line based system administration in Linux with practical example.

3. Able to create and manipulate permissions for different users in a Linux based OS

4. Understand the better view of file system structure of Linux based OS

5. Practically learn to install and configure a number of different servers in a Linux based OS learn too troubleshoot different server problems

BTCS-518A Python Programming Laboratory

1. Understand different types of control structures of python.

2. Understand and working of exception handling and assertions.

3. Design and implement python programs with different types of protocols

BTCS-508A Training –II

The student will undergo 6 weeks industrial training for making various projects

BTHU-501A Professional Skills-III

1 Understand nuances of group dynamics and team-work and also to develop ability for effective conflict management.

2 Sharpen and demonstrate Verbal Ability, Spatial Ability and Memory skills.

3 Understand the linkage between attitude and behaviour and its role in professional and personal well-being.

4 Develop and demonstrate oral and written communication skills such as Oral presentations, Group discussion, Resume writing, job application writing, email

5 writing

6th Semester

BTCS-601A Compiler Design

1. Introduce the major concept areas of Language translation and compiler design.

2. Understand the concepts of Syntax Analysis and Semantic Analysis.

3. Learn the concepts of Parsing.

4. Understand, design code generation schemes.

5. Understand optimization of codes and runtime environment.

BTCS-602A Computer Graphics

1. To gain the basic knowledge on computer graphics and its various elements, video display devices such as raster and random scan systems.

2. To understand the scan conversion for generating point, line, circle and ellipse structures.

3. To understand the theory of 2D and 3D transformations and clipping techniques.

4. To analyse and implement the Filling techniques and to understand the plane projection and its types.

5. Detailed knowledge of visible surface detection methods and surface shading algorithms.

BTCS-603A Software Engineering

1. Understand a software engineering process life cycle , including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements .

2. Analyse and specify software requirements through a productive working relationship with various stakeholders of the project.

3. Analyse and translate a specification into a design, and then realize how to develop the code from the design using an appropriate software engineering methodology.

4. Apply relevant standards and perform testing, and quality management and practice.

5. Understanding how to use modern engineering tools necessary for software project management, time management and software reuse.

BTCS-604A Data Warehouse & Mining

1. Grasp basic knowledge about the Data warehouse, architecture and relationships.
2. In-depth knowledge of Temporal data warehouse
3. Describe about data mining, its issues, processing models
4. Classification of various measures, presentation and visualization of patterns.
5. Apply the various association rules, association mining classification and clustering.

BTCS-611A Mobile Application Development

1. Appreciate the Mobility landscape

2. Familiarize with Mobile apps development aspects

3. Design and develop mobile apps, using Android as development platform, with key focus on user experience design, native data handling and background tasks and notifications.

4. Appreciation of nuances such as native hardware play, location awareness, graphics, and multimedia.

5. Perform testing, signing, packaging and distribution of mobile apps

BTCS-612A Cloud Computing

1. Articulate the main concepts, underlying key technologies, strengths and limitations of cloud computing

2. Identify the architecture of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc

3. Identify the problems and explain, analyze and evaluate various cloud computing solutions.

4. Explain the core issues of cloud computing such as security and privacy.

5. Provide the appropriate cloud computing solutions and recommendations according to the application used.

BTCS-613A Information Security

1. Understand and learn the basics of Symmetric Ciphers.

2. Explain the concepts of Public key encryption and Digital Signatures.

3. Use the concepts of Authentication Protocols.

4. Understand the concepts of network security.

 5. Describe the concepts of System Security.

BTCS-614A Artificial Intelligence

1. Understand and learn the basics of Artificial Intelligence.

2. Define the concepts of BFS and DFS.

3. Use the concepts of Reasoning, Planning and Uncertainty.

4. Understand the concepts of applications of AI.

BTCS-605A Computer Graphics Laboratory

1. Understand and explain the mathematical and theoretical principles of computer graphics eg: To draw basic objects like lines, triangles and polygons.

2. Implementation of fundamental algorithms and transformations involved in viewing models.

3. Implementation of projection models, illumination models and handling of hidden surfaces and clipping in computer graphics

4. Analyze and evaluate the use of computer graphics methods in practical applications and describe effects such as texture mapping and ant aliasing

BTCS-606A Software Engineering Laboratory

1. Understand the working and efficiency of the tools for estimation of project work

2. Understand the division of tasks to different persons among teams.

3. Draft and design the documents related to functional and non-functional requirements.

4. Design the test cases for testing software or a project.

5. Real time manual testing of a website and understand various parameters associated with it.

BTCS-607A Data Warehouse & Mining Laboratory

1. Understand the working and efficiency of Weka tool.

2. Understand the classification of Mining techniques.

3. Draft and design the Classification and Visualization techniques.

4. Implement Data Cleansing.

5. Implement various Data Mining tools.

BTCS-608A Web and Open Source Technologies

1. Understand the working and HTML and DHTML.

2. Understand the concepts of CSS and Java Script.

3. Draft and design the Ajex based applications.

4. Implement various PHP programs.

5. Implement various Validation techniques of ASP.

BTHU-601A Professional Skills-IV

1 Understand implications of varied aspects of Motivation and its assessment.

2 Understand and imbibe leadership skills and various styles of leadership.

3 Sharpen and demonstrate problem solving abilities, logical reasoning skills, verbal and numerical reasoning, Pictorial comparison, shapes and symbols.

4 Develop and Demonstrate oral and written communication Skills such as Negotiation Skills, Meeting Skills, Interview Skills, **Report** Writing