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Criterion No.2.6.1

Criterion Details: Programme outcomes and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

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Annexure-I

Program Outcomes

Program Outcomes- B.Tech (CSE/EEE/ECE/ME/CE)

- PO-01: Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO-02: Problem Analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO-03: Design/development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO-04: Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO-05: Modern Tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO-06: The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO-07: Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO-08: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO-09: Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO-10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and illustrate effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO-11: Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO-12:Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



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Program Outcomes-M.Tech (CSE/Thermal Engineering /Structural Engineering)

- PO-01:** An ability to independently carry out research / investigation and development work to solve practical problems.
- PO-02:** Ability to write and present a substantial technical report / document.
- PO-03:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program.
- PO-04:** Apply the knowledge of engineering principles to develop software systems, products and processes thus to solve real world multifaceted problems.
- PO-05:** Ability to design and conduct experiments, procedures and technical skills necessary for engineering exploration to solve societal problems and environmental contexts for sustainable development.
- PO-06:** Recognize the need to engage in self-governing and life-long learning by making use of professional and ethical principles



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Program Outcomes- BCA

- PO-01: Take Thinking:** Take informed action after identifying the assumptions that frame our thinking and action, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- PO-02: Effective Communication:** Speak, read, write and listen clearly in person and thought electronics media in English and in one Indian Language, and make meaning of the world by connecting people, ideas, book, media and technology.
- PO-03: Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusion in group settings.
- PO-04: Effective Citizenship:** Demonstrate empathetic social concern and equity national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- PO-05: Ethics:** Recognize different values system including your own, understand the moral dimension of your decisions, and accept responsibility for them.
- PO-06: Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- PO-07: Self-Directed and Life-Long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technologies changes.



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Program Outcomes - MCA

- PO-01: Computational Knowledge:** Apply knowledge of computing fundamentals, computing specialization, mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements
- PO-02: Problem Analysis:** Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.
- PO-03: Design/development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO-04: Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO-05: Modern Tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO-06: Professional Ethics:** Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.
- PO-07: Life-long Learning:** Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional.
- PO-08: Project management and Finance:** Demonstrate knowledge and understanding of the computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO-09: Communication Efficacy:** Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.
- PO-10: Societal and Environmental Concern:** Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practices.
- PO-11: Individual and Team Work:** Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.
- PO-12: Innovation and Entrepreneurship:** Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.



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Program Outcomes- B.Com. (HONS.)

- PO-01:** To apply mathematical, analytical and statistical tools for financial and accounting analysis.
- PO-02:** Develop an understanding of various commerce functions such as finance, accounting, financial analysis, project evaluation and cost accounting.
- PO-03:** To develop appropriate skills in the students so as to make them competent and provide themselves self-employment.
- PO-04:** The program is designed to equip students with adequate skill and proficiency in areas relating to commerce and management.
- PO-05:** Develop self-confidence, ethics and awareness of general issues prevailing in the society



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Program Outcomes-BBA

- PO-01:** To be able to apply the management domain knowledge to solve routine and specific business problems.
- PO-02:** To develop capability of analysing and critical thinking to take informed and real time data based decisions.
- PO-03:** To foster the technological knowhow to solve business and management related problems in technologically driven environment.
- PO-04:** To be able to take leadership positions based on ethical, value driven, sustainable, holistic and entrepreneurial approach.
- PO-05:** To develop various managerial and entrepreneurial skills for catering to the local and global business scenarios.
- PO-06:** To imbibe and practice the different domain knowledge and develop skills required for specialized functional areas.



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Program Outcomes-MBA

- PO-01:** Apply knowledge of management theories and practices to solve business problems.
- PO-02:** Foster analytical and critical thinking abilities for data-based decision making.
- PO-03:** Ability to develop value based leadership.
- PO-04:** Ability to understand, analyse and communicate global, economic, legal, and ethical aspects.
- PO-05:** Ability to lead themselves and others in the achievement of organizational goals.



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Program Outcomes-BJMC

- PO-01:** Evaluate an understanding of social concepts and principles of social science and other fields.
- PO-02:** Hypothesize and define problems and opportunities in the realm of media and communication.
- PO-03:** Demonstrate the ability to identify social problems, isolate its key components, analyze and assess the salient issues, draw appropriate conclusions & implications for proposed experiments.
- PO-04:** Devise the use of appropriate ways to effectively manage contemporary social prospects.
- PO-05:** Resolving and recommend next generation mass media tools.



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Program Outcomes- B.Sc. Agriculture (HONS.)

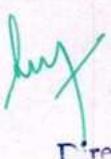
- PO-01:** Create, select, and apply appropriate techniques, resources, and modern tools and software for prediction and forecast of outcomes based on agricultural sciences.
- PO-02:** To identify and review, formulate and analyse problems in various sectors of Agriculture & Forestry.
- PO-03:** Design Solutions of various problems found in farming system with due consideration of farmers health and safety.
- PO-04:** To develop scientific aptitude which is beneficial for the society?
- PO-05:** To develop communication skills such as reading, writing, speaking etc which will help in expressing ideas and views clearly & effectively.
- PO-06:** Function effectively as an individual and as a member for leader in diverse organizations.
- PO-07:** Recognize the need for, and have the preparation & ability to engage in independent & lifelong learning in the broadest context of technological & professional changes

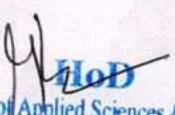


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Course Outcome Applied science and Engineering

B.Tech:I Year All (Cos):I & II Semester		
S.No.	Course Code	Course Outcome
1.	AHT-001	<ul style="list-style-type: none"> 1. Investigate the physical optical phenomena using different optical systems, upto order of 3. 2. Apply the concept of physical optics to use the working of Lasers and optical fiber-based communication systems using He-Ne laser. 3. Analyze the properties of an electromagnetic wave and the characteristics of magnetic materials using Maxwell's equations. 4. Examine the dual nature of light and particle using the Schrodinger wave equation in one dimension. 5. Design the fabrication of semiconductor devices using the knowledge of semiconductor materials.
2.	AHT-003	<ul style="list-style-type: none"> 1. Apply the concept of matrices, eigenvalues, eigenvectors, and applications such as system solutions and diagonalization. 2. Analyze mean value theorems, and concept of extrema and error approximation to solve real life problems, extends to multivariable calculus. 3. Utilize the application of definite integrals to solve multiple integral upto three variables and visualize & analyze functions using curve tracing. 4. Implement theorems related to vector calculus like Gauss divergence, Stokes and Green to solve surface and volume integrals subjected to simple curves. 5. Evaluate the surface areas and volumes of revolutions, and geometric analysis of mass and stability in physical systems.
3.	EET-001	<ul style="list-style-type: none"> 1. Apply the knowledge of basic laws and concepts pertaining to different types of DC & AC supply systems 2. Apply the Electrical installation systems concepts in real world implementation 3. Categorize the working of different types of electromechanical energy conversion systems under different working conditions 4. Analyze the solutions of problems related to the different network structures as an individual or in a team 5. Evaluate the problems of various Electromechanical energy conversion systems with the variation of the construction and loading parameters


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4.	CST-001	<ol style="list-style-type: none"> Design algorithms and flow charts to develop the effective solutions for given problem. Apply the appropriate syntax and semantics of C Programming language for solution of computational problems. Use user define functions, arrays, pointers, strings and structures to formulate algorithms and write programs of a given problem. Analyze in a team the different ways to solve problems and find their relative merits and demerits and submit a report. Evaluate contemporary high level languages on basis of performance and user friendliness and submit a report.
5.	AHP-003	<ol style="list-style-type: none"> Apply digital marketing techniques / procedures to solve given real world problems Conduct experiments as an individual or as a team by using modern digital marketing tools. (TWITTER/INSTAGRAM/SEARCH ENGINE OPTIMIZATION FACEBOOK MARKETING) Make an effective report based on experiments. Compare and contrast digital marketing tools and make a effective report an individual or in team Investigate the suitability of newly created digital marketing webpage/banners through canva/Youtube Channel
6.	AHP-005	<ol style="list-style-type: none"> Understand the management of self employment & entrepreneurship involving various activities related to professional skills. Illustrate by the help of complex assignments to describe the emerging change in future competencies using analysis techniques. Organizing a market prospective using tools to evaluate possible self-employment areas that indicate the ability for collaboration. Assesing effective and efficient financial & investment decision eventually leading to time and budget management Reflecting about the cases of successful and unsuccessful entrepreneurs leading towards sustainability development in an effective and efficient leadership skill.
7.	AHT-002	<ol style="list-style-type: none"> Extend chemical science with technical aspect of Engineering Chemistry. Apply the facts and ideas of thermodynamics in the fields of engineering. Utilize the technical knowledge in several industries, where Engineering chemistry is used as an integral part, like: Polymer chemistry; Paints, Lubricants; Fuel, Glass etc. Solve the problem of hard and polluted water with its treatment and different type of corosions with its minimization.


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		<p>5. Analyze different advance techniques of Instrumental Chemistry, like: Principal of spectroscopy, NMR and MRI spectroscopy. Elementary idea about organic reactions and synthesis of Drugs.</p>
8.	AHT-005	<ol style="list-style-type: none"> 1. Solve wide range of differential equations, including variable separable, homogeneous, exact forms, linear & non-linear equations. 2. Apply mathematical techniques to analyze a higer order of ODEs, facilitating practical problems in engineering. 3. Utilize mathematical techniques like Lagrange's multiplier and Charpit method to solve partial differential equations, and solve problems related to heat and wave equations upto two dimensions. 4. Analyze complex variables, analytic functions, and calculate complex integrals using Cauchy's integral and residue theorems. 5. Test the convergence of sequences and series using convergence tests like comparison, D' Alembert's ratio test, Raabe's test.
9.	ECT001	<ol style="list-style-type: none"> 1. Apply basic electronics devices & techniques in various applications. 2. Implement biasing techniques to operate BJT, FET and OPAMP in different modes. 3. Illustrate design issues, advantages, disadvantages and limitations of circuits using basic electronics devices. 4. Analyze output of electronic devices in different operating modes. 5. Develop competence to design basic digital circuits using gates.
10.	MET-001	<ol style="list-style-type: none"> 1. Apply the Basic Mechanics theory to find the forces in static and dynamic mechanical systems 2. Determine the forces on mechanical systems and choose the appropriate materials and examine failure due to stresses. 3. Analyse appropriate dimensions of Mechanical system and calculate exact dimension for measuring instruments. 4. Evaluate the heat and work and illustrate the power producing and power absorbing devices 5. Estimate the efficiency of I.C engine and compare the of applications of I.C. Engines.
11.	AHP-004	<ol style="list-style-type: none"> 1. Apply emerging techniques / procedures to solve given real world problems 2. Conduct experiments as an individual or as a team by using modern tools. (modern manufacturing, advancement in transport systemtc.) 3. Make an effective report based on experiments. 4. Compare and contrast emerging technologies and make a effective report an individual or in team 5. Investigate the suitability of electrical vehicle in order to find the

		architectural pattern/ Design pattern and the materials used cost estimation in a team or individually and submit a detailed report
12.	CSP-002	<ol style="list-style-type: none"> 1. Perform the experiments with Linux distributions and MS Office applications to create and manipulate documents, spreadsheets, and presentations, demonstrating advanced capabilities such as macro implementation and data visualization. 2. Analyze and manage computer system utilities and software installations, including the use of system registry and control panel tools, to optimize system performance and troubleshoot issues. 3. Implement the knowledge of MS Office tools and Linux commands to solve complex problems in information systems, demonstrating the ability to select and utilize appropriate software solutions for various tasks in a business environment. 4. Evaluate the setup and outcomes of hardware experiments, including the dismantling and reassembling of a PC and interfacing with IoT devices like Arduino/Raspberry Pi, assessing the efficiency and accuracy of the configurations. 5. Develop comprehensive experiment reports that articulate the methodology, analysis, and findings from laboratory exercises, demonstrating the ability to synthesize experimental data into well-structured documents adhering to scientific reporting standards.
13.	AHT-004	<ol style="list-style-type: none"> 1. Apply the fundamental concepts of ecology, ecosystems, and their constituent parts, and assess the significance of conserving biodiversity 2. Demonstrate the ideas about the role of an individual / group in the conservation of the environment through effective skills. 3. Write arguments regarding the global environmental challenges, their underlying problems, and the ethical codes associated with environmental issues 4. Analyze the impacts of pollutions on the environment, human health, and ecosystems 5. Analyze all the natural / energy sources in terms of their environmental consequences and sustainability.
14.	MEP-003	<ol style="list-style-type: none"> 1. Apply the standard procedure to measure the shape and size of specimen using specified instruments & tools. 2. Conduct an experiment as an individual or as a team by using modern tools for machining and other workshop practices. 3. Analyse the output of given problem as an individual or as a team in the trades of fitting, carpentry, welding and machining operations. 4. Evaluate the experimental results as an individual or as a team based on

		<ul style="list-style-type: none"> machining,welding,carpentry and fitting shop related operations. 5. Prepare a detailed professional engineering report on machining, carpentry work, fitting and welding processes that suitable in the given real life application.
15.	AHP-006	<ul style="list-style-type: none"> 1. Apply base of professional vocabulary for the application through reading , writing, comprehension. 2. Apply the dimensions of communication skills i.e reading, writing, listening, speaking 3. Analyse the error free writing by being well versed in rules of english grammar in Technical styles of communication and presentation. 4. Evaluate at work place for presentations/official drafting and use it for document/project/report. 5. Assess interpersonal/ intrapersonal communication skills by voice dynamics leading to professional competence
16.	MEP-002	<ul style="list-style-type: none"> 1. Simplify complex objects for drawing by using orthographic projection Technique. 2. Apply prior knowledge of math, science & projection techniques to construct drawing of 2-D surfaces and 3-D solids. 3. Adapt to Auto CAD commands to Construct 2-D surfaces & 3-D solids. 4. Analyze the given 2-D & 3-D objects based on it's actual shape, size and intricacies as an individual and in a team. 5. Make an effective documentation for all the drawing problems and submit its report.
17.	MEP-001	<ul style="list-style-type: none"> 1. Apply the standard procedure to estimate the strength of material for a given specimen 2. Conduct the experiment of given specimen using Universal Testing Machine and impact testing machine 3. Analyse the output of given Problem , match with starndrad value 4. Examine the ideal results carried out based on UTM and Impact testing machine. 5. Summrize and submit a reports of performed experimental work for safe design.


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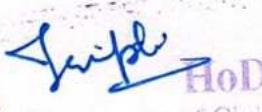

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Annexure-III

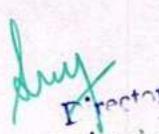
Course Outcome Civil Engineering

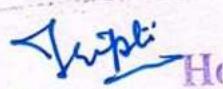
Civil Engineering: III Semester		
S.No.	Course Code	Course Outcome
1.	AHT 006	<ol style="list-style-type: none"> Remember the concept of Laplace transform and apply in solving real life problems. Apply the concept of Fourier transform to evaluate engineering problems. Understand to evaluate roots of algebraic and transcendental equations. Solve the problem related interpolation, differentiation, integration and the solution of differential equations. Understand the concept of correlation, regression, moments, skewness and kurtosis and curve fitting.
2.	AHT 008	<ol style="list-style-type: none"> Students are expected to become more aware of themselves, and their surroundings (family, society, nature) They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction.
3.	CET001	<ol style="list-style-type: none"> Compare the properties of most common and advanced building materials. understand the typical and potential applications of these materials understand the relationship between material properties and structural form understand the importance of experimental verification of material properties understand the properties of low cost and advanced material used in construction.


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4.	CET002	<ol style="list-style-type: none"> 1. Learn chain survey, compass survey, Theodolite survey , levelling, error calculation & adjustment and 2. Learn how curves are plotted and constructed for highways and railway projects 3. Use latest instruments like Digital Theodolite, Auto Level, EDM, Total station 4. Understand the various methods of plane table surveying and its importance in survey. 5. Understand about various types of errors in surveying and how to rectify them.
5.	CET003	<ol style="list-style-type: none"> 1. Describe the concepts and principles, understand the theory of elasticity including strain/displacement and Hooke's law relationships; and perform calculations, relative to the strength and stability of structures and mechanical components; 2. Define the characteristics and calculate the magnitude of combined stresses in individual members and complete structures; analyze solid mechanics problems using classical methods and energy methods; 3. Analyze various situations involving structural members subjected to combined stresses by application of Mohr's circle of stress; locate the shear centre of thin wall beams; 4. Calculate the deflection at any point on a beam subjected to a combination of loads; solve for stresses and deflections of beams under unsymmetrical loading; apply various failure criteria for general stress states at points; 5. Analyze the stresses developed in thin cylinders and concept of torsional equation in shafts, solve torsion problems in bars and thin walled members;
6.	CST 005	<ol style="list-style-type: none"> 1. Develop essential programming skills in computer programming concepts like data types. 2. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions. 3. Illustrate the process of structuring the data using lists, tuples, and dictionaries. 4. Demonstrate using built-in functions and operations to navigate the file system. 5. Interpret the concepts of modules and user-defined functions in Python.


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Civil Engineering: IV Semester

S.No.	Course Code	Course Outcome
7.	CST 003	<ol style="list-style-type: none"> 1. Compare functions using asymptotic analysis and describe the relative merits of worst-case, average-case, and bestcase analysis. 2. Become familiar with a variety of sorting algorithms and their performance characteristics (e.g., running time, stability, space usage) and be able to choose the best one under a variety of requirements. 3. Understand and identify the performance characteristics of fundamental algorithms and data structures and be able to trace their operations for problems such as sorting, searching, selection, operations on numbers, and graphs. 4. Solve real-world problems using arrays, stacks, queues, and linked lists. 5. Become familiar with the major graph algorithms and their analyses. Employ graphs to model engineering problems when appropriate.
8.	AHT 007	<ol style="list-style-type: none"> 1. Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as Engineers. 2. Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions. 3. Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience. 4. Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence. 5. It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice dynamics.


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9.	CET004	<ol style="list-style-type: none"> Analyse trusses and study displacement response of statically determinate structural systems using energy methods: apply unit load method and strain energy method for determination of deflection of statically determinate beams, frames & pin jointed trusses Analyse statically indeterminate structures using strain energy method and method of consistent deformation know about moving loads and influence lines Know about Statically determinate and indeterminate suspension bridges and arches
10.	CET005	<ol style="list-style-type: none"> Identify Quality Control tests on concrete making materials Understand the behaviour of fresh and hardened concrete Design concrete mixes as per IS and ACI codes Understand the durability requirements of concrete Understand the need for special concretes
11.	CET006	<ol style="list-style-type: none"> Understand the broad principles of fluid statics, kinematics and dynamics Understand definitions of the basic terms used in fluid mechanics Understand classifications of fluid flow Be able to apply the continuity, momentum and energy principles Be able to apply dimensional analysis
12.	CST 006	<ol style="list-style-type: none"> Understand cyber-attacks and types of cybercrimes, and familiarity with cyber forensics Realize the importance of cyber security and various forms of cyber-attacks and countermeasures. Get familiar with obscenity and pornography in cyberspace and understand the violation of the Right to privacy on the Internet. Appraise cyber laws and how to protect themselves and, ultimately, the entire Internet community from such attacks. Elucidate the various chapters of the IT Act 2008 power of the Central and State Governments to make rules under IT Act 2008

Civil Engineering: V Semester

S.No.	Course Code	Course Outcome
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13.	BCET 501	<ol style="list-style-type: none"> 1. Students will understand the general mechanical behaviour of reinforced concrete. 2. Students will be able to analyze and design reinforced concrete flexural members. 3. Student will be able to analyze and design reinforced concrete compression members. 4. Students will be able to analyze and design for vertical and horizontal shear in reinforced concrete. 5. Students will be able to analyze transfer and development length of concrete reinforcement
14.	BCET 502	<ol style="list-style-type: none"> 1. Determine soil physical characteristics (including unit weight / density - water content relationship) 2. Determine the coefficient of permeability and equivalent hydraulic conductivity in stratified soil 3. Describe the purposes and different phases of a soil investigation, soil exploration program, soil exploration methods and soil identification in the field. 4. Discuss the concept of effective stress and determine stress distribution within a soil mass. 5. Explain the 'shear strength' of soil, describe the direct shear test method and interpret direct shear test results
15.	BCET 503	<ol style="list-style-type: none"> 1. Understand the broad principles of fluid statics, kinematics and dynamics 2. Understand definitions of the basic terms used in fluid mechanics 3. Understand classifications of fluid flow 4. Be able to apply the continuity, momentum and energy principles 5. Be able to apply dimensional analysis
16.	BCET504 (A)	<ol style="list-style-type: none"> 1. Analyze structures using force method 2. Analyze structures using displacement method 3. Learn Clapeyron's theorem and its applications 4. Analyze structures using matrix methods 5. Analyze structures using plastic analysis


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17.	BOEC505 (B)	<ol style="list-style-type: none"> 1. Understand concepts of Pavement performance 2. Understand Pavement construction procedures; and Design flexible and Rigid Pavement 3. Fully conversant with topics like design and performance of pavement surface, sub-grade theory, load transfer systems and joints behaviour consideration 4. To Classify Highway Construction and their Maintenance 5. Understand various traffic characteristics and analysis and use the data for road design
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Civil Engineering: VI Semester

S.No.	Course Code	Course Outcome
18.	BCET 601	<ol style="list-style-type: none"> 1. Be able to perform analysis and design of reinforced concrete members and connections. 2. Be able to identify and interpret the appropriate relevant industry design codes 3. To become familiar with professional and contemporary issues in the design and fabrication of reinforced concrete members. 4. Understand the properties and role of various constituent materials used in concrete making 5. Understand the theory and principles of design and solution of Reinforced Concrete structures.
19.	BCET 602	<ol style="list-style-type: none"> 1. To provide a sound understanding of different sources of water. 2. To understand the different methods used to calculate water demands. 3. To learn different plumbing methods to transport water to different sources. 4. To study about wastewater and its physical, chemical & biological aspects. 5. To study different types of sewers and its layout.


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20.	BCET 603	<ol style="list-style-type: none"> Ability to solve open channel flow problems through the selection and use of appropriate equations. An ability to apply your knowledge of mathematics, science, and engineering. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. Ability to explain the physical mechanisms of hydraulic jumps, surges, and critical, uniform, and gradually-varying flows. Ability to explain and apply mathematical relationships for hydraulic jumps, surges, and critical, uniform, and gradually-varying flows
21.	BCET604(A)	<ol style="list-style-type: none"> Determine bearing capacity of soil and retaining wall. Determine the settlement of different type of foundation Understand the purposes of soil investigation, soil exploration program, soil exploration methods and soil identification in the field. Obtain the effective stress and determine stress distribution within a soil mass Calculate the 'shear strength' of soil, describe the direct shear test method and interpret direct shear test results.
22.	BOEC605 (A)	<ol style="list-style-type: none"> Upon completion of the course, students will be able to have clear understanding of managerial functions like planning, and have same basic knowledge on international aspect of management To understand the planning process in the organization To understand the concept of organization Demonstrate the ability to directing, leadership and communicate effectively To analysis isolate issues and formulate best control methods

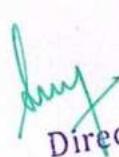
Civil Engineering: VII Semester

S.No.	Course Code	Course Outcome

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23.	BCET 701	<ol style="list-style-type: none"> 1. To introduce the students to the area of water and wastewater treatment. 2. The course will cover water chemistry; characteristics of water & wastewater; primary, secondary & tertiary treatment processes. 3. To learn about solid waste management and its disposal. 4. To have insight knowledge of Industrial waste that causes pollution on large basis. 5. To learn about purification of wastewater and its usage for various irrigation purposes.
24.	BCET 702	<ol style="list-style-type: none"> 1. Identify and compute the design loads on a typical steel building. 2. Able to identify and interpret the appropriate relevant industry design codes. 3. Identify the different failure modes of steel tension and compression members and beams, and compute their design strengths. 4. Students will be able to check and specify the serviceability requirements of the designed steel structures. 5. Identify the different failure modes of bolted and welded connections, and determine their design strengths.
25.	BCET 703 (C)	<ol style="list-style-type: none"> 1. Understand the porous medium properties that control groundwater flow and transport, including porosity, hydraulic conductivity, and compressibility. 2. Derive effective hydraulic conductivity for various cases of heterogeneous subsurface formations. 3. Apply groundwater flow equations to confined and unconfined aquifers. 4. Analyze pump test data to determine aquifer properties. 5. Estimate travel times for groundwater contaminants in a saturated aquifer.
26.	BOEC 704 (A)	<ol style="list-style-type: none"> 1. Provide a background in the theory of hydrological processes and their measurement. 2. Apply science and engineering fundamentals to solve current problems and to anticipate, mitigate and prevent future problems in the area of water resources management. 3. An ability to manipulate hydrological data and undertake widely-used data analysis. 4. A systematic understanding of the nature of hydrological stores and fluxes and a critical awareness of the methods


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		<p>used to measure, analyze and forecast their variability; and the appropriate contexts for their application.</p> <p>5. Can define the key components of a functioning groundwater, can determine the main aquifer properties – permeability, transmissivity and storage Identify geological formations capable of storing and transporting groundwater.</p>
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Civil Engineering: VIII Semester

S.No.	Course Code	Course Outcome
27.	BOEC 804 (A)	<ul style="list-style-type: none"> 1. Students will get the understanding of different types of hydropower schemes and their purposes. 2. Students will get to learn how to plan and design the different types of hydraulic structures. 3. Student will learn concepts and aspects of Location, components Structures involved in a Hydropower plant. 4. Student will have proper understanding of various appurtenances used in any Hydro project. 5. Students will learn about how electricity is transferred & distributed from hydro power plant.
28.	BCET 801	<ul style="list-style-type: none"> 1. An understanding of modern construction practices. 2. A good idea of basic construction dynamics- various stakeholders, project objectives, Processes, resources required and project economics. 3. A basic ability to plan, control and monitor construction projects with respect to time and cost. 4. An idea how construction projects are administered with respect to contract structures and issues. 5. An idea about the latest earth moving equipments & machinery used in construction projects.
29.	BCET-802	<ul style="list-style-type: none"> 1. The students will gain an experience in the implementation of Earthquake Engineering on engineering concepts which are applied in field Structural Engineering. 3. The students will get a diverse knowledge of earthquake engineering practices applied to real life problems 2. The students will learn to understand the theoretical and practical aspects of earthquake engineering along with the planning and design aspects 3. The students will learn to understand the seismic codal provision prescribed by IS:1893 4. The students will learn to understand the concept of Risk


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		and Hazardous condition due to earthquake.
30.	BCET 803 (A)	<ol style="list-style-type: none"> Various components of hydrologic cycle that affect the movement of water in the earth. Various Stream flow measurements technique. The concepts of movement of ground water beneath the earth. The basic requirements of irrigation and various irrigation techniques, requirements of the crops. Distribution systems for canal irrigation and the basics of design of unlined and lined irrigation canals design.

Civil Engineering: M.Tech I Semester

S.No.	Course Code	Course Outcome
31.	AHT301	<ol style="list-style-type: none"> Learn distinct methods of solving simultaneous equations. well-verses with partial differential equations and their solutions and applications. Acquire the knowledge of transformation to ease the complex problems. Acquaintance with basics of random variables and their distribution for dealing with events by chance. Study different mathematical domains to deal with real-time engineering problems.
32.	CET-301	<ol style="list-style-type: none"> To impart the principles of elastic structural analysis and behaviour of indeterminate structures. To impart knowledge about various methods involved in the analysis of indeterminate structures. To apply these methods for analyzing the indeterminate structures to evaluate the response of structures. To enable the student get a feeling of how real-life structures behave To make the student familiar with latest computational techniques and software used for structural analysis.
33.	CET-302	<ol style="list-style-type: none"> Solve advanced problems of elasticity and plasticity understanding the basic concepts. Apply numerical methods to solve continuum problems Analyse the bending of various types of beams under static loading conditions and compute the shear stress distribution for different cross sections of beams. Compute the torsion for the circular shaft and analyse the crippling load and equivalent length for various types of

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		<p>columns of different end conditions</p> <p>5. Compute the deflection of beams and shafts under static loading and stresses in thin walled cylindrical and spherical vessels</p>
34.	CET-303	<p>1. Solve ordinary and partial differential equations in structural mechanics using numerical methods.</p> <p>2. Write a program to solve a mathematical problem.</p>
35.	CET-306	<p>1. Use analytical methods for the solution of thin plates and shells. Use analytical methods for the solution of shells.</p> <p>2. Apply the numerical techniques and tools for the complex problems in thin plates. Apply the numerical techniques and tools for the complex problems in shells.</p>
36.	AHT-303	<p>1. Write clearly and fluently to produce effective technical documents.</p> <p>2. Demonstrate an appropriate communication style to different types of audiences both orally and written as per demand of their professional careers.</p> <p>3. Communicate in an ethically responsible manner.</p>

Civil Engineering: M.Tech II Semester

S.No.	Course Code	Course Outcome
37.	CET-311	<p>1. Design steel structures/ components by different design processes.</p> <p>2. Analyze and design beams and columns for stability and strength, and drift</p> <p>3. Design welded and bolted connections</p> <p>4. Analyse and design Foot Bridge.</p> <p>5. Design industrial components using cold formed steel sections/composite sections</p>
38.	CET 314	<p>1. To analyse the special structures by understanding their behaviour</p> <p>2. To design and prepare detail structural drawings for execution citing relevant IS codes</p> <p>3. To estimate the crack width and deflection with regard to the serviceability</p> <p>4. To analyse and design a grid floor system</p> <p>5. To analyse and design a flat slab system</p>


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39.	CET 310	<ol style="list-style-type: none"> 1. Analyse and study dynamics response of single degree freedom system using fundamental theory and equation of motion 2. Analyse and study dynamics response of multi-degree freedom system using fundamental theory and equation of motion 3. Use the available software for dynamic analysis
40.	(CET-309)	<ol style="list-style-type: none"> 1. Use Finite Element Method for structural analysis. 2. Execute the Finite Element Program/ Software. 4. Solve continuum problems using finite element analysis.
Civil Engineering: M.Tech III SEM		
41.	CET-322 (ELECTIVE)	<ol style="list-style-type: none"> 1. Understand the aspect of costing aspects in decision making and inventory. . 2. Perceived knowledge of project execution 3. Understand the cost behaviour and profit planning marginal costing. 4. Understand the aspect of MRP, ERP and TQM. 5. Analyze the quantitative techniques for cost management.

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Annexure-IV

Course Outcome Mechanical Engineering

Mechanical Engineering:III Semester		
S.No.	Course Code	Course Outcome
1.	AHT-006	<ul style="list-style-type: none"> 1. Remember the concept of Laplace transform and apply in solving real life problems. 2. Apply the concept of Fourier transform to evaluate engineering problems. 3. Understand to evaluate roots of algebraic and transcendental equations. 4. Solve the problem related interpolation, differentiation, integration and the solution of differential equations. 5. Understand the concept of correlation, regression, moments, skewness and kurtosis and curve fitting.
2.	AHT-007	<ul style="list-style-type: none"> 1. Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as Engineers. 2. Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions. 3. Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience. 4. Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence. 5. It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.
3.	AHT-008	<ul style="list-style-type: none"> 1. Students are expected to become more aware of themselves, and their surroundings (family, society, nature) 2. They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. 3. They would have better critical ability. 4. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). 5. It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.


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4.	MET-002	<ul style="list-style-type: none"> 1. Apply energy balance to systems and control volumes, in situations involving heat and work interactions. 2. Evaluate changes in thermodynamic properties of pure substances. 3. Evaluate the performance of energy conversion devices. 4. Differentiate between high grade and low-grade energies. 5. Understand the importance of thermodynamic relations.
5.	MET-003	<ul style="list-style-type: none"> 1. Identify crystal structures for various materials and understand the defects in such structures. 2. Understand how to tailor material properties of ferrous and non-ferrous alloys. 3. Explain detailed interpretation of equilibrium phase diagrams. 4. Understand how to quantify mechanical integrity and failure in materials. 5. Explain the different metals and alloys.
6.	MET-004	<ul style="list-style-type: none"> 1. Learn about the application of mass and momentum conservation laws for fluid flows. 2. Obtain the velocity and pressure variations in various types of simple flows. 3. Understand the importance of dimensional analysis. 4. Understand the flow in turbines. 5. Analyse the flow in water pumps.
7.	MEP-004	<ul style="list-style-type: none"> 1. Correlate the microstructure with the mechanical & physical properties of given set of engineering materials. 2. Study the microstructure with the mechanical & physical properties of given set of engineering materials. 3. Perform destructive testing and find out the mechanical properties of given set of engineering materials. 4. Perform nondestructive testing and to find out any irregularities in the given set of engineering materials. 5. Conduct tribological experiments and to find out wear rate of given set of engineering materials.
8.	MEP-005	<ul style="list-style-type: none"> 1. Understand the working of flow meters. 2. Understand the concept of flow transition from laminar to turbulent. 3. Understand the different forms of energy of fluid flow. 4. Understand the various losses in pipes. 5. Understand the performance of pumps and turbines
9.	MEP-006	<ul style="list-style-type: none"> 1. Draft their technical ideas. 2. Develop their knowledge about the various practices as dimensioning, sectioning and development of views. 3. Understand the importance of the linking functional and visualization aspects in preparation of the part drawings. 4. Prepare the part or assembly drawings as per the conventions. 5. Interpret various machine drawings that will in turn help them

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		to prepare the production drawings.
10.	MEP-007	<ol style="list-style-type: none"> 1. Develop his abilities to transmit technical information clearly and test the same by delivery of Seminar based on the Mini Project or Internship. 2. Understand the importance of document design by compiling Technical Report on the Mini Project or Internship work carried out. 3. Comment and evaluate other students research questions and internship proposals.
11.	CST-005	<ol style="list-style-type: none"> 1. Develop essential programming skills in computer programming concepts like data types. 2. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions. 3. Illustrate the process of structuring the data using lists, tuples, and dictionaries. 4. Demonstrate using built-in functions and operations to navigate the file system. 5. Interpret the concepts of modules and user-defined functions in Python.
Mechanical Engineering:IV Semester		
12.	CST-006	<ol style="list-style-type: none"> 1. Understand cyber-attacks and types of cybercrimes, and familiarity with cyber forensics 2. Realize the importance of cyber security and various forms of cyber-attacks and countermeasures. 3. Get familiar with obscenity and pornography in cyberspace and understand the violation of the Right to privacy on the Internet. 4. Appraise cyber laws and how to protect themselves and, ultimately, the entire Internet community from such attacks. 5. Elucidate the various chapters of the IT Act 2008 power of the Central and State Governments to make rules under IT Act 2008
13.	AHT-007	<ol style="list-style-type: none"> 1. Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as Engineers. 2. Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions. 3. Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience. 4. Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence. 5. It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.

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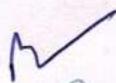
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14.	AHT-008	<ul style="list-style-type: none"> 1. Students are expected to become more aware of themselves, and their surroundings (family, society, nature) 2. They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. 3. They would have better critical ability. 4. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). 5. It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.
15.	MET-005	<ul style="list-style-type: none"> 1. Know the basics of mechanism and perform kinematic analysis. 2. Implement the synthesis mechanism. 3. Construct various cam profiles based on follower motion and perform kinematic analysis. 4. Deduce the number of teeth in gears and torque transmitted in epicyclic gear trains. 5. Understand and apply the aspects of friction in clutches and belt rope drives.
16.	MET-006	<ul style="list-style-type: none"> 1. Get a good understanding of various practical power cycles and heat pump cycles. 2. Understand the steam generator and its various types, their mountings and accessories, having knowledge to calculate the heat balance for steam generators. 3. Analyse energy conversion in various thermal devices such as combustors, air coolers, nozzles, diffusers, steam turbines and reciprocating compressors. 4. Understand the basics of different turbines used for electricity generation. 5. Understand the aspect of Jet Propulsion
17.	MET-007	<ul style="list-style-type: none"> 1. Recognize various types of loads applied on machine components of simple geometry and understand the nature of internal stresses that will develop within the components. 2. Analyze determinate beams and trusses to determine shear forces, bending moments and axial forces. 3. Gain sufficient knowledge in designing shafts to transmit required power and also spring for its maximum energy storage capacities. 4. Identify modes of failure in components. 5. Identify, formulate and solve engineering problems.



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18.	MET-008	<ol style="list-style-type: none"> Explain the different metal casting processes. Explain the different metal forming and sheet metal operations along with the force calculations. Explain the theory of rolling and sheet metal work. Explain the different unconventional metal forming processes, powder metallurgy and manufacturing of plastic component. Explain the jigs and fixture use and metrology.
19.	MEP-008	<ol style="list-style-type: none"> Understand the basics of working of boilers, mountings and accessories used for industrial application. Grasp the principle and working of two strokes and four strokes internal combustion engines used in automobiles Understand working of turbines used for power generation application. Evaluate the working and COP of the Refrigeration and Air conditions systems used in various industrial and domestic applications. Analyze the performance of steam turbines.
20	MEP-009	<ol style="list-style-type: none"> Perform the different experiments on metal casting. Perform the different experiments on metal forming. Perform the different experiments on jigs and fixture. Perform the different experiments on powder metallurgy. Perform the different experiments on metrology.
21.	MEP-010	<ol style="list-style-type: none"> Understand principle and functioning of mechanism such as slider crank, four bar chain, Ackerman's steering. Gain knowledge about the kinds of belt drives and calculate the coefficient of friction between belt and pulley. Plot cam profiles for different arrangements. Understand functioning of different gears. Determine screw jack efficiency.
Mechanical Engineering:V Semester		
22.	BMET-501	<ol style="list-style-type: none"> Ability to understand productivity and work study Ability to apply plant layouts and understanding the application of material handling equipments An understanding of managerial economics Ability to apply the concept of Inventory and supply chain management An understanding of job evaluation and merit rating.


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23.	BMET-502	<ol style="list-style-type: none"> 1. Illustrate the fundamentals of stress analysis, theories of failure and material science in the design of machine components. 2. Analyze the principle of solid mechanics to design machine members, under variable loading. 3. Analyze the shaft design based on strength, rigidity and design various types of coupling based on application. 4. Compare and analyze design parameters of Springs & joints on various loading applications. 5. Illustrate the different types of Product design & development
24.	BMET-503	<ol style="list-style-type: none"> 1. Mathematically formulate and analyze heat transfer system by conduction mode 2. Apply the conduction heat transfer knowledge on fins which are used in various applications 3. Apply the knowledge of fluid flow and convection heat transfer to analyze the thermal system 4. Analyze radiative heat transfer system 5. Perform thermal design of various heat exchangers
25.	BMET-504A	<ol style="list-style-type: none"> 1. Analyse engine classification Cycle analysis 2. Estimate Combustion in SI engine, abnormal combustion and it's control, combustion. 3. Categorize different Fuel injection in CI engines and Fuel injectors. 4. Analyse cooling systems, Cooling Towers & Radiators. 5. Analyse Performance parameters and Testing of SI and CI engines.
26.	BMET-505	<ol style="list-style-type: none"> 1. Developed the attitudes, values, characteristics, behaviour, and processes associated with possessing an entrepreneurial mindset and engaging in successful appropriate entrepreneurial behaviour 2. Justify the ways in which entrepreneurs perceive opportunity, manage risk, organize resources and add value 3. Developed advanced knowledge about key processes necessary to bring new products and services to market and key challenges facing the entrepreneur at different stages of the entrepreneurial voyage 4. Will utilize interpersonal and leadership skills to be highly effective business managers and leaders; demonstrating self-awareness, emotional intelligence, curiosity, visionary and strategic thinking, teamwork, reflection and knowledge transfer skills


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Mechanical Engineering:VI Semester		
27.	BMET-601	<ol style="list-style-type: none"> 1. Determine the velocity triangles in turbomachinery stages operating at design and offdesign conditions 2. Apply the affinity laws to pumps such as to determine their off-design behavior 3. Perform the preliminary design of turbomachines (pumps, compressors, turbines) on a 1- D basis 4. Recognize relations between choices made early in the turbomachinery design process and the final components and operability 5. Recognize and discuss today's and tomorrow's use of turbomachines for enabling a sustainable society
28.	BMET-602	<ol style="list-style-type: none"> 1. Enable students to attain the basic knowledge required understanding, analyzing, designing and select machine elements required in transmission systems 2. To develop the ability of the selection of gear types, sizing, analysis and material selection of gear systems 3. To develop the ability of the selection of bearings, analysis and material selection of bearings 4. To develop an ability to design I.C. Engine parts, component, or process to meet desired needs. 5. To analyze, identify, formulate, and solve engineering problems.
29.	BMET-603	<ol style="list-style-type: none"> 1. Interpret the working principles and applications of refrigeration systems. 2. Interpret the vapour compression refrigeration system and identify methods for Performance improvement. 3. Demonstrate the working principles of air, vapour absorption, thermoelectric and estimate the condition of steam and performance of vapour power cycle and vapour compression cycle 4. Analyze air-conditioning processes using the principles of psychrometry and estimate various essential properties related to Psychrometry and processes. 5. Evaluate cooling and heating loads in an air-conditioning system.
30.	BMET-604C	<ol style="list-style-type: none"> 1. Apply the concept of Product Design and Development Process, as a means to manage the development of an idea from concept through to production 2. Apply creative process techniques in synthesizing information, problem-solving and critical thinking 3. Demonstrate and employ hand drawing and drafting principles to convey concepts 4. Analyze the basic fabrication methods to build prototype models for hard-goods and soft-goods and packaging. 5. Demonstrate, apply, explain, and recognize basic engineering,

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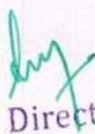
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		mechanical, and technical principles.
31.	BMET-605	<ol style="list-style-type: none"> 1. Apply matrix algebra and Lie algebra for computing the kinematics of robots 2. Calculate the forward kinematics and inverse kinematics of serial and parallel robots 3. Calculate the jacobian for serial and parallel robots 4. Develop the path planning for a robotic system 5. Develop the simulation of robots using Maple or Matlab
Mechanical Engineering:VII Semester		
32.	BMET 701	<ol style="list-style-type: none"> 1. Analyze failure data, maintainability, availability and reliability. 2. Evaluate different Maintenance Strategies 3. Interpret different Replacement techniques and planning 4. Compare various handling techniques in engineering industries. 5. Use different concepts of Maintenance Management and spare parts planning and control.
33.	BMET- 702	<ol style="list-style-type: none"> 1. Analyze production planning and control 2. Concepts of integrated CAD/CAM, CADEngineering applications, its importance & necessity. 3. To analyze the principle, Part Families, Types of Flexibility - FMS - FMS Components - FMS Application & Benefits 4. Categorize the Brief on Manufacturing Resource Planning-II (MRP-II) & Enterprise Resource Planning (ERP) - Simple Problems. 5. Compare various Robot Anatomy and Related Attributes - Classification of Robots- Robot Control systems
34.	BMET-703(A)	<ol style="list-style-type: none"> 1. Illustrate the fundamentals of nanomaterials, Properties of materials &nanomaterials 2. Analyze the Chemical Routes for Synthesis of Nanomaterials: Chemical precipitation and coprecipitation. 3. Analyze the Fabrication of Nanomaterials by Physical Methods: -Inert gas condensation 4. Compare and analyze design parameters of An Introduction: Types of Nanocomposite (i.e. metal oxide, ceramic,glass and polymer based) 5. Illustrate the different types of Colossal magnetoresistance, Superparamagnetism High Tc materials:YBCO and Bi-systems


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35.	BMET-704 (A)	<ol style="list-style-type: none"> 1. Categorize, interpret and understand the essential properties of fuels for IC engines 2. Identify the need for alternate fuels and characterize prospective alternate fuels 3. Evaluate the vehicle fuel storage and dispensing facility requirements. 4. Analyze the implement limitations with regard to performance, emission and materials compatibility. 5. Develop strategies for control of emissions as per the legislation standards.
36.	BMET- 801	<ol style="list-style-type: none"> 1. Categorize, interpret and understand the Characteristics and phases of OR Mathematical formulation of L.P. Problems. 2. Identify the Formulation of transportation model, Basic feasible solution using different methods, Optimality Methods 3. Evaluate the Formulation of games, two person-Zero sum game, games with and without saddle point 4. Analyze the implement limitations wit Queuing system and their characteristics. The M/M/1 Queuing system 5. Analyze the Network construction, determining critical path, floats, scheduling by network.
37.	BMET 802	<ol style="list-style-type: none"> 1. Upon completion of this course, students will be able to analyze the automobile and its parts and about SI & CI engine 2. They will be able to analyse the cooling and lubrication system 3. Upon completion of this course, students will be able to analyze the suspension and chassis system 4. Design steering and gear system. 5. Design ignition and lighting system
38.	BMET- 803(A)	<ol style="list-style-type: none"> 1. Estimate the different sources of energy and future planning of policies in India. 2. Analyse the different components of thermal power plant. 3. Explain different components of Nuclear power plant with safety features. 4. Compare and analyze different economic aspects associated with different power generation systems. 5. Analyze different environmental aspects of power generation systems.


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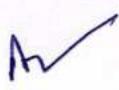

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39.	BMET-803 (B)	<ol style="list-style-type: none"> Understand basics of solar radiation. Understand the concept of flat plate and evacuated solar collector Comprehend the concept of solar water heating, solar air heating. Understand the principles of solar concentrator and solar distillation. Analyze the types and features of solar photovoltaic systems.
40.	BMET-804(B)	<ol style="list-style-type: none"> Analyze Forest resources : Use and over-exploitation, deforestation, case studies Structure and function of an ecosystem. Concept of an ecosystem. Analyze genetic, species and ecosystem diversity. Climate change, global warming, acid rain, ozone layer depletion.

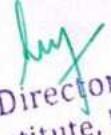
M. Tech.-Thermal Engineering:I Semester

41.	AHT-301	<ol style="list-style-type: none"> Comprehend with engineering problems in different mathematical realm. Learn analytical and numerical methods to deal with mathematical problems. Understand how to model the engineering problems and their solutions. Implement the solutions to real-time complex engineering problems. Apprehend with mathematical methodology.
42.	TET-301	<ol style="list-style-type: none"> Students will be able to understand the history, concepts, formulations and applications of thermodynamics. Students will be able to analyze and solve various practical problems on the applications of thermodynamics. Students will be able to apply various solution techniques for solving new applied and theoretical problems.
43.	TET-302	<ol style="list-style-type: none"> Understand flow physics and mathematical model of governing Navier-Stokes equations and define Proper boundary conditions for solution. Use CFD software to solve relevant engineering flow problems. Analyze the CFD results. Compare with available data, and discuss the findings.


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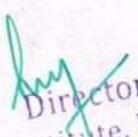

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44.	TET-305	<ul style="list-style-type: none"> 1. Students will be able to understand the history, concepts, formulations and applications of fluid mechanics. 2. Students will be able to analyze and solve various practical problems on the applications of fluid mechanics. 3. Students will be able to apply various solution techniques for solving new applied and theoretical problems.
45.	TET-307	<ul style="list-style-type: none"> 1. Modify automotive engine to operate by using various alternative fuels. 2. Analyze engine performance and emission characteristics by using alternative fuels. 3. Suggest advance engine technology for alternative fuels.
46.	AHT-302	<ul style="list-style-type: none"> 1. To understand research problem formulation. 2. To study research design and method of data collections. 3. To study methods of report writing. 4. To follow research ethics. 5. To enhance student's competence to discover new inventions.
M. Tech.-Thermal Engineering:II Semester		
47.	TET-303	<ul style="list-style-type: none"> 1. Analyze boundary layer development problems. 2. Analyze external and internal forced convection by applying existing empirical correlations. 3. Aexamine the convective heat transfer in porous media and in systems involving phase change. 4. apply the concepts to analyze industrial problems.
48.	TET-304	<ul style="list-style-type: none"> 1. Understand the aspects of designing of thermal systems. 2. Solve the problem using numerical simulation by choosing the design variables which affects the problem. 3. Explain economic aspects of designing and able to apply different techniques of optimization applicable to thermal system.
49.	TET-313	<ul style="list-style-type: none"> 1. Basic knowledge about factors affecting wind power at different atmospheric and terrain conditions. 2. Understanding of working principles of different wind driven machines.


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		<ul style="list-style-type: none"> 3. Knowledge of analyzing different wind driven machines. 4. Knowledge of techno-economic analysis of wind driven machines. 5. understanding the energy market regulations and pricing mechanisms
50.	TET-320	<ul style="list-style-type: none"> 1. Understand the underlying principles of operation of different I.C engines and components. 2. Provide knowledge on pollutant formation, control, recent trends etc.
M. Tech.-Thermal Engineering: III Semester		
51.	TET-321	<ul style="list-style-type: none"> 1. Carry out scoping and screening of developmental projects for environmental and social assessments 2. Explain different methodologies for environmental impact prediction and assessment 3. Plan environmental impact assessments and environmental management plans 4. evaluate environmental impact assessment reports
52.	TET-323	<ul style="list-style-type: none"> 1. Identify the fuel thermo-chemistry and fuel quality effects on emissions. 2. Describe the modifications required and the effects of design parameters.

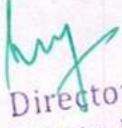

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Annexure-V

Course Outcome Electronics & Communications Engineering

Electronics & Communication Engineering:III Semester		
S.No.	Course Code	Course Outcome
1.	ECT031	<ul style="list-style-type: none"> 1. Design and Analyze single and multistage amplifier circuits for small signal applications. 2. Understand the concepts used to design and analyze high frequency amplifier circuits. 3. Understand the linear and nonlinear application of operational amplifier. 4. Understand feedback concepts in amplifier and oscillator circuits. 5. Design and analyze power amplifier circuits.
2.	CST-005	<ul style="list-style-type: none"> 1. Develop essential programming skills in computer programming concepts like data types. 2. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions. 3. Illustrate the process of structuring the data using lists, tuples, and dictionaries. 4. Demonstrate using built-in functions and operations to navigate the file system. 5. Interpret the concepts of modules and user-defined functions in Python.
3.	AHT-006	<ul style="list-style-type: none"> 1. Remember the concept of Laplace transform and apply in solving real life problems. 2. Apply the concept of Fourier transform to evaluate engineering problems. 3. Understand to evaluate roots of algebraic and transcendental equations. 4. Solve the problem related interpolation, differentiation, integration and the solution of differential equations. 5. Understand the concept of correlation, regression, moments, skewness and kurtosis and curve fitting.
4.	AHT-007	<ul style="list-style-type: none"> 1. Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as Engineers. 2. Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions. 3. Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience. 4. Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence. 5. It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.

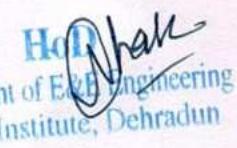

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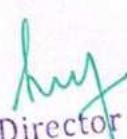
5.	AHT-008	<ol style="list-style-type: none"> Students are expected to become more aware of themselves, and their surroundings (family, society, nature) They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.
6.	ECT032	<ol style="list-style-type: none"> Solve electrical circuits using various network laws and theorems. Design Different electrical circuits and passive filters for various applications Analyse different 2-port electrical networks and their parameters. Synthesize an electrical network from the given network function. Analyze various transforms and their applications.
7.	ECT033	<ol style="list-style-type: none"> Understand the Boolean algebra and minimization of digital functions. Design and implement various combinational circuits. Design and implement various sequential circuits. Understand the digital logic families, semiconductor memories, Design the digital circuits using VHDL
8.	CST-003	<ol style="list-style-type: none"> Compare functions using asymptotic analysis and describe the relative merits of worstcase,average-case, and best-case analysis. Become familiar with a variety of sorting algorithms and their performance characteristics (e.g., running time, stability, space usage) and be able to choose the best one under a variety of requirements. Understand and identify the performance characteristics of fundamental algorithms and data structures and be able to trace their operations for problems such as sorting,searching, selection, operations on numbers, and graphs. Solve real-world problems using arrays, stacks, queues, and linked lists. Become familiar with the major graph algorithms and their analyses. Employ graphs to model engineering problems when appropriate.
9.	ECP-031	<ol style="list-style-type: none"> Plot characteristics of various electronics devices. Analyze the feedback amplifier circuits..

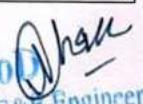

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		<ul style="list-style-type: none"> 3. Analyze and Characterize different oscillator circuits 4. Design and Analyze Multi-stage amplifier circuits. 5. Able to solving practical related to basic electronic circuits.
10.	ECP-032	<ul style="list-style-type: none"> 1. Students will be able to design and implement various theorems. 2. Students will be able to design and implement transient response of RLC circuits. 3. Students will be able to design the experiments, analyze and interpretation various two port network parameters 4. Students will be able to design the experiments, analyze and interpretation filters. 5. Students will acquire skills of teamwork, technical communication and effective report writing.
11.	ECP-033	<ul style="list-style-type: none"> 1. Design and implement various digital logic circuits using ICs. 2. Design and implement analog and digital circuits using TCAD tools and on FPGA boards. 3. Design the experiments, analyze and interpretation of data to achieve valid conclusions. 4. Acquire skills of team work, technical communication and effective report writing. 5. Capable of solving practical digital electronics circuits.
Electronics & Communication Engineering:IV Semester		
12.	AHT-008	<ul style="list-style-type: none"> 1. Students are expected to become more aware of themselves, and their surroundings (family, society, nature) 2. They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. 3. They would have better critical ability. 4. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). 1. It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.
13.	ECT-041	<ul style="list-style-type: none"> 1. Student will be able to design and analyze various continuous modulation schemes. 2. Student will be able to analyse the noise performance of continuous modulation systems. 3. Students will acquire knowledge of digital base band transmissions. 4. Students will be able to understand different modulation techniques used in digital communications. 5. Students will be capable of solving engineering problems related to communication systems.


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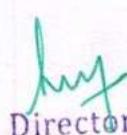
14.	ECT-042	<ol style="list-style-type: none"> Students will be able to understand the architecture and develop program of Intel 8085/8086. Students will be able to understand the working and use of different peripherals of microprocessors. Students will be able to understand the architecture of microcontroller and programming. Students will be able to interface a microcontroller system to other electronic systems. Students will be capable of solving engineering problems related to microprocessors and microcontrollers.
15.	ECT-043	<ol style="list-style-type: none"> Students will be able to understand principles, theorems of electromagnetic, and their applications. Students will be able to apply the knowledge of electromagnetic for time-varying fields. Students will be able to understand the working of transmission lines and their applications. Students will be able to understand the propagation of EM waves through waveguides. Students will be able to solve engineering problems related to electromagnetic.
16.	ECP-041	<ol style="list-style-type: none"> Students will be able to design and test different modulation and demodulation schemes of analog communication. Students will be able to implement various digital modulation techniques using hardware circuits. Students will be able to design the experiments, analyze and interpret the measured data. Students will acquire skills of teamwork, technical communication and report writing. Students will be capable of solving practical communication engineering problems.
17.	ECP-042	<ol style="list-style-type: none"> Students will be able to write assembly language program in 8085 & 8086 microprocessor. Students will get the knowledge of Memory and peripheral interfacing with Microprocessors (8085/8086). Students will be able to write program for 8051 microcontrollers. Students will acquire skills of teamwork, technical communication and effective report writing. Students will be capable of solving practical engineering problems related to application of microprocessors and microcontrollers.
18.	CSP-003	<ol style="list-style-type: none"> Develop programs using dynamic memory allocation and linked list ADT. Apply Stack and Queue to solve problems. Implement the concept of hashing in real-time dictionaries. Identify and implement suitable data structures for the given

		<p>problem.</p> <p>5. Solve real-world problems by finding the minimum spanning tree and the shortest path algorithm.</p>
Electronics & Communication Engineering:V Semester		
19.	BECT 501	<ol style="list-style-type: none"> Understand the Principles of magnetic circuits, transformators, machines and generators,synchronous machines Apply the basics concepts of generators, induction machines, special machines, renewable energy production. To give information about conversion of electrical energy into mechanical energy and vice versa using electromagnetic fields, To explain different machines and generators, working principles, To build basis for more advanced studies in electrical machines and to introduce renewable energy resources.
20.	BECT -502	<ol style="list-style-type: none"> Create computational models for analysis power systems and able to understand per unit system Analyse a power system network under Symmetrical Conditions to discriminate Positive Sequence, Negative & zero sequence system. Evaluate load flow computations for an interconnected power system. Illustrate power system operation and transient control. Test the stability control of a power system
21.	BECT -503	<ol style="list-style-type: none"> Students can analyze a coordinate of point in Cartesian, Cylindrical and spherical co-ordinate systems. Also interpret the physical interpretation of gradient,divergence and curl. Evaluate the physical quantities of electrostatic fields (Field intensity, Flux density etc.) in dielectric media and free space using the fundamental laws (Coulomb andGauss law). To compute the magnetic field intensity and magnetic flux density due to finite and infinite length of conductor by using Bioat-Savart and Ampere Circuit law. Apply the phenomena of wave propagation in lossy dielectric, loss-less dielectric and perfect conducting medium. Analyze the nature of electromagnetic wave propagation in guided medium by using of transmission line parameters.
22.	BECT -504	<ol style="list-style-type: none"> Recent techniques and computer application formodeling of practical and large interconnected powersystem networks using programming languages Recent methodologies for simulation and analysis ofpower system networks like real and reactive powerflows and optimal scheduling.

		<ul style="list-style-type: none"> 3. Effect of outage of any important component of power system on the operation and reliability of power systems 4. Algorithm required to find out parameters for monitoring and control of power system in real time from actual measurement data.
23.	BOEC-505	<ul style="list-style-type: none"> 1. Acquire the knowledge basic sensor characteristics. 2. Classify the different types of sensors and actuators 3. Apply and solve appropriate mathematical equations of temperature sensors 4. Apply and solve appropriate mathematical equations of pressure sensors 5. Apply and solve appropriate mathematical equations of level sensors and display devices
24.	BECP-501	<ul style="list-style-type: none"> 1. Illustrate students with a moderate level understanding of the physics behind the crystal structure of material 2. Employ the students with the understanding of the physics behind the dielectric materials 3. Analyse the students with a thorough understanding of the electrical properties and characteristics of various materials, used in electrical appliance 4. Analyse the students with a thorough understanding of the magnetic properties and characteristics of various materials, used in electrical appliance
25.	BECP-502	<ul style="list-style-type: none"> 1. Demonstrate non-linear system behavior by phase plane and describing function methods 2. Perform the stability analysis of nonlinear systems by Lyapunov method develop design skills in optimal control problems 3. Derive discrete-time mathematical models in both time domain (difference equations, state equations) and z-domain (transfer function using z-transform) 4. Predict and analyze transient and steady-state responses and stability and sensitivity of both open-loop and closed-loop linear, time-invariant, discrete-time control systems 5. Acquire knowledge of state space and state feedback in modern control systems, pole placement, design of state observers and output feedback controllers
26.	BECP-503	<ul style="list-style-type: none"> 1. Fundamentals of basic communication system, types of noise affecting communication system and noise parameters 2. Need of modulation, modulation processes and different amplitude modulation schemes 3. Different angle modulation schemes with different generation and detection methods. 4. Analyze concept of advanced modulation techniques 5. Apply the knowledge of digital communication and describe the error control codes like block code, cyclic code

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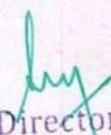
27.	BECP 506	<ol style="list-style-type: none"> Acquire basic knowledge on the working of various semiconductor converters Develop analysis capability in SCR and Circuits Develop design competence in signal and power using SCR family elements Acquire knowledge on basic power OPAMPS Acquire knowledge on basic PLC and its working
28.	BECP -507	<ol style="list-style-type: none"> To describe Types of Entrepreneurs. Describe basic operation and Major Motives of an Entrepreneur Analyze Market Survey and Research. Formulate a Good Business opportunity.
Electrical & Electronics Engineering:VI Semester		
29.	BEET 601	<ol style="list-style-type: none"> Relate basic semiconductor physics to properties of powerdevices, and combine circuit mathematics andcharacteristics of linear and non-linear devices Describe basic operation and compare performance ofvarious power semiconductor devices, passivecomponents and switching circuits Design and Analyze power converter circuits and learn toselect suitable power electronic devices by assessing therequirements of application fields.. Formulate and analyze a power electronic design at thesystem level and assess the performance. Identify the critical areas in application levels and derivetypical alternative solutions, select suitable powerconverters to control Electrical Motors and other industrygrade apparatus.
30.	BECT -602	<ol style="list-style-type: none"> Examine the evolution of processor and architectureof 8085, 8086, 80286, 80386, 80486,microcontroller, Pentium processors. Analyze the architecture of 8086 microprocessoralong with the addressing mode and comparisonwith 8088 Comply simple programs for 8085/86 in assemblylanguage Interpret the interfacing of 8086 microprocessor Employ analog to digital converter and set up theirinterfacing with 8086 microprocessor
31.	BECT-603	<ol style="list-style-type: none"> Acquire knowledge about the time domain representation andclassification of discrete time signals and systems Acquire knowledge about the time domain analysis of lineartime invariant discrete time systems and representation of totalresponse in various formats. Acquire knowledge about the application of discrete timeFourier transform, Discrete Fourier series and z-transform fordiscrete time signal representation and analysis of linear timeinvariant systems discrete time systems Acquire knowledge about the design methods for IIR and FIRfilters and their realisation structures.

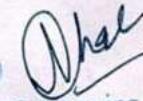

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		<p>5. Acquire knowledge about the finite wordlength effects in the implementation of digital filters</p>
32.	BEET - 604(A)	<p>1. Understand the operations of different FACTS devices 2. Select the controllers for different Contingencies. 3. Analyze the different FACTS devices in different stability conditions. 4. Select an appropriate FACTS device for a particular application</p>
33.	BEET - 604(B)	<p>1. Employ the fundamentals of PLC, DCS, and SCADA for automation used in industry. 2. Differentiate the hardware and software requirements of PLC and SCADA. 3. Categorise the basics of man-machine communication based on the communication system 4. Construct the safety instrumented systems on the basis of the requirements of safety. 5. Apply the concept of SCADA in different applications</p>
34.	BEET - 603 (C)	<p>1. Create awareness among students about Non-Conventional sources of energy technologies 2. Enable students to understand various renewable energy technologies and systems. 3. To impart the knowledge of Storage technologies from the autonomous renewable energy sources 4. Equip the students with knowledge and understanding of various possible mechanisms about renewable energy projects</p>
35.	BOCT 605(A)	<p>1. Classify the basic terms of a Power System Grid; explain the importance and objectives of the various dispersed generation units 2. Analysis of various energy management policies; distinguish them according to their priorities 3. Describe and classify the modern and innovative application fields of dispersed generation units 4. Describe by drawing a block diagram and explain the operation of the basic part of a smart grid (namely the Micro-grid); quantify its operational, financial and environmental advantages. 5. Acquire the knowledge on power quality of the smart-grid System</p>
36.	BOCT- 605(B)	<p>1. Able to get the basics of Power Plants. 2. Able to get the idea about the power generation by renewable and non-renewable energy resources 3. Able to know about the different types of cycles and natural resources used in power plants and their applications. 4. Understanding of Power Plant Economics, Energy</p>

		<p>Storage including compressed air energy and pumped hydro etc.</p> <p>5. Discussing environmental and safety aspects of power plant operation</p>
37.	BOCT-603(C)	<ol style="list-style-type: none"> The ability to formulate and then analyse the working of any electrical machine under loaded and unloaded conditions The skill to analyse the response of any electrical machine The ability to troubleshoot the operation of an electrical machine Compare accepted standards and guidelines to select appropriate electrical machines to meet specified performance requirements. Demonstrate an understanding of the fundamental control practices associated with rotating machines (starting, reversing, braking, speed control etc.).
Electrical & Electronics Engineering: VII Semester		
38.	BEET- 701	<ol style="list-style-type: none"> Acquire the knowledge of abnormal conditions to detect faults occurring in a power system. Design electromagnetic, static and microprocessor relays in power system for protecting equipment and personnel Construct the unit protection and over voltage protection scheme in a power system Testing of circuit breakers (methods)
39.	BEET-702	<ol style="list-style-type: none"> Illustrate fundamental concepts of heating. Identify a heating scheme for domestic and industrial applications. Illustrate fundamental concepts of welding; classify welding scheme for domestic and industrial applications. Design the interior and exterior lighting systems illumination levels for various purposes light fittings factory lighting - flood lighting - street lighting. Design and investigate operating characteristics of traction motors with respect to speed, temperature and loading condition. Assess the traction system (locomotives) for braking, acceleration and other related parameters, including demand side management.
40.	BEET-703(A)	<ol style="list-style-type: none"> Apply the concepts of neural networks to demonstrate artificial neural network. Analyze the types of architecture and perceptron model Interpret the concept of Fuzzification to design fuzzy logic control system using MATLAB To compute the genetic algorithm method and rules based controller Design real time systems using the application of artificial


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		neural network and fuzzy logic control
41.	BEET-703(B)	<ol style="list-style-type: none"> 1. Have a basic knowledge of the principles of Fuel Cells and its components, types of Fuel Cells, performance characteristics, and applications of Fuel Cells. 2. Have a basic knowledge of Hydrogen Energy, Properties of Hydrogen, Production methods and purification, Storage methods, Environmental benefits and its Applications in the Hydrogen Economy. 3. Have a basic knowledge of Ocean energy resources and technologies including Tidal energy, Wave power devices, OTEC, Bio Photolysis, Ocean currents and Salinity gradient devices. 4. Have a basic knowledge of the principles of Magneto Hydro Dynamic power generation system, and its applications & technologies.
42.	BEET-703(C)	<ol style="list-style-type: none"> 1. Understand the principles behind generating high DC -AC and impulse voltages 2. Develop equivalent circuit models of the different high voltage generators 3. Perform a dynamic response analysis of high voltage measurement systems 4. Compute the breakdown strength of gas, liquids and solids insulation systems 5. Understands the transient voltages and their propagation characteristics
43.	BOET-704(C)	<ol style="list-style-type: none"> 1. Understand the axiomatic formulation of modern Probability Theory and think of random variables as an intrinsic need for the analysis of random phenomena 2. Characterize probability models and functions of random variables based on single & multiple random variables. 3. Evaluate and apply moments & characteristic functions and understand the concept of inequalities and probabilistic limits. 4. Understand the concept of random processes and determine covariance and spectral density of stationary random processes 5. Demonstrate the specific applications to Poisson and Gaussian processes and representation
44.	BOET-704(D)	<ol style="list-style-type: none"> 1. Demonstrate an ability to apply spatial transformation to obtain forward kinematics equation of robot manipulators 2. Demonstrate an ability to obtain the Jacobian matrix and many more to use it to identify singularities 3. To study various types of transducers: electrical, mechanical, electro mechanical and optical etc 4. To learn the concepts of special purpose DAC and different types of automation system

		<p style="text-align: center;">5. Demonstrate knowledge of robot controllers</p> <p style="text-align: center;">Electrical & Electronics Engineering:VIII Semester</p>
45.	BEET- 801	<ol style="list-style-type: none"> Demonstrate non-linear system behavior by phaseplane and describing function methods Perform the stability analysis nonlinear systems byLyapunov method develop design skills in optimalcontrol problems Derive discrete-time mathematical models in bothtime domain (difference equations, state equations)and zdomain (transfer function using z-transform) Predict and analyze transient and steady-stateresponses and stability and sensitivity of both openloopand closed-loop linear, time-invariant, discretetimecontrol systems Acquire knowledge of state space and state feedbackin modern control systems, pole placement, design ofstate observers and output feedback controllers
46.	BEET 802	<ol style="list-style-type: none"> Differentiate electric drives systems based on nature ofloads, control objectives, performance and reliability. Illustrate the concept of braking to distinguish types ofmotors in electric drives. Develop capability to choose a suitable DC Motor andPower Electronic Converter involving load estimation andload cycle consideration. Design the frequency controlled converters used in induction motor drives utilising phase controlledconverters. Analyze the output waveforms of the converters withdifferent types of loads
47.	BEET 803 (A)	<ol style="list-style-type: none"> Understand the need for image transforms different typesof image transforms and their properties. Learn different techniques employed for the enhancementof images. Learn different causes for image degradation and overview of image restoration techniques. Understand the need for image compression and to learn the spatial and frequency domain techniques ofimage compression.
48.	BEET 803 (B)	<ol style="list-style-type: none"> Understand the physiology of biomedical system. Measure biomedical and physiological information Discuss the application of Electronics in diagnostics andtherapeutic area Analyze where and how sensors are used in healthcare. Study design parameter of ECG, EEG.
49.	BEET 803 (C)	<ol style="list-style-type: none"> Understand principle of energy conversion,, two-polemachines and Kron's primitive machine Mathematical modelling for analysis of machine instationary and rotating reference frame

		<ul style="list-style-type: none"> 3. Examine the transient behaviour of the machine when subjected to sudden load change or during fault 4. Evaluate cost of practical design of such non linear machine for the design of industrial electrical drives 5. Design a high performance sensor less drive system with optimal dynamic response
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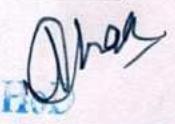

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Course Outcome Electrical & Electronics Engineering

Electrical & Electronics Engineering:III Semester		
S.No.	Course Code	Course Outcome
1.	CST 003	<ol style="list-style-type: none"> 1. Compare functions using asymptotic analysis and describe the relative merits of worst-case, average-case, and best-case analysis. 2. Become familiar with a variety of sorting algorithms and their performance characteristics (e.g., running time, stability, space usage) and be able to choose the best one under a variety of requirements. 3. Understand and identify the performance characteristics of fundamental algorithms and data structures and be able to trace their operations for problems such as sorting, searching, selection, operations on numbers, and graphs. 4. Solve real-world problems using arrays, stacks, queues, and linked lists. 5. Become familiar with the major graph algorithms and their analyses. Employ graphs to model engineering problems when appropriate.
2.	CST-005	<ol style="list-style-type: none"> 1. Develop essential programming skills in computer programming concepts like data types. 2. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions. 3. Illustrate the process of structuring the data using lists, tuples, and dictionaries. 4. Demonstrate using built-in functions and operations to navigate the file system. 5. Interpret the concepts of modules and user-defined functions in Python.
3.	AHT-006	<ol style="list-style-type: none"> 1. Remember the concept of Laplace transform and apply in solving real life problems. 2. Apply the concept of Fourier transform to evaluate engineering problems. 3. Understand to evaluate roots of algebraic and transcendental equations. 4. Solve the problem related interpolation, differentiation, integration and the solution of differential equations. 5. Understand the concept of correlation, regression, moments, skewness and kurtosis and curve fitting.
4.	AHT-007	<ol style="list-style-type: none"> 1. Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as Engineers. 2. Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions.


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		<ul style="list-style-type: none"> 3. Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience. 4. Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence. 5. It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.
5.	AHT-008	<ul style="list-style-type: none"> 1. Students are expected to become more aware of themselves, and their surroundings (family, society, nature) 2. They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. 3. They would have better critical ability. 4. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). 5. It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.
6.	EET 002	<ul style="list-style-type: none"> 1. To introduce signals and system types and signal operation. 2. To solve first and second order systems. 3. To make student learn Laplace transform technique for solving circuits. 4. To use theorems for solving circuits. 5. To introduce two-port networks, representation and interconnections.
7.	EET 003	<ul style="list-style-type: none"> 1. Apply the concept of Principles of Energy Conversion. 2. Understand to evaluate peration of single-phase transformers, equivalent circuit, phasor diagram, voltage regulation, losses and efficiency 3. Solve the problem related three-phase to six-phase conversion. 4. Understand the concept of Basic construction of a DC machine.
8.	EET 004	<ul style="list-style-type: none"> 2. Apply the concept of BJT biasing circuits, biasing stabilization techniques. 3. Analysis of voltage-series, voltage-shunt, current-series 4. Solve the problem related Hartley, Colpitts, Clapp, RC phase-shift, Wien-bridge and crystal oscillators, astable, monostable. 5. Understand the concept of digital logic families, TTL, Schottky TTL and CMOS logic
Electrical & Electronics Engineering:IV Semester		
9.	AHT-008	<ul style="list-style-type: none"> 1. Students are expected to become more aware of themselves, and their surroundings (family, society,

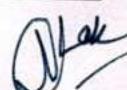
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		<p>nature)</p> <ol style="list-style-type: none"> 2. They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind. 3. They would have better critical ability. 4. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). 6. It is hoped that they would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction.
10.	EET 005	<ol style="list-style-type: none"> 1. Students should be able to understand the Fundamentals of AC machine windings 2. To introduce magnetic field produced by a single winding - fixed current and alternating current 3. To understand various Types (squirrel cage and slip-ring), Rotor frequency, rotor (Emf, current and power) Equivalent circuitTo analyze the concept of Photojournalism and its importance. 4. To categorize various Constructional features, double revolving field theory. 5. To analyze the operating characteristics of synchronous machines, V-curves. Salient pole machine.
11.	EET 006	<ol style="list-style-type: none"> 1. Students will be able to classify various Methods of Measurement, Measurement System 2. To show the role of Use of Instrument transformers, Ratios of Instrument transformers, Burden of an instrument transformer 3. To understand the Measurement of low, medium and high resistances, Wheatstone bridge, Kelvin's double bridge 4. To interpret the role of Polar type & Co-ordinate type AC potentiometers. 5. Demonstrate various skills of Basic CRO circuit (Block Diagram), Cathode ray tube (CRT) & its components, application of CRO in measurement
12.	EET 007	<ol style="list-style-type: none"> 1. To develop skills based on Vector algebra-addition, subtraction, components of vectors, scalar and vector multiplications 2. To discover with basic knowledge of Coulomb's law, Electric field intensity, Electrical field due to point charges. Line, Surface and Volume charge distributions 3. Demonstrate various skills of Conductors, Dielectrics and Capacitance 4. To understand the Force on a moving charge, Force on a differential current element

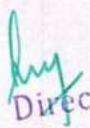
		5. To examine Time Varying Fields, Maxwell's Equations and Electromagnetic Waves
Electrical & Electronics Engineering:V Semester		
13.	BEET- 501	<ol style="list-style-type: none"> Understand the Principles of magnetic circuits, transformators, machines and generators,synchronous machines Apply the basics concepts of generators, induction machines, special machines, renewable energy production. To give information about conversion of electrical energy into mechanical energy and vice versa using electromagnetic fields, To explain different machines and generators, working principles, To build basis for more advanced studies in electrical machines and to introduce renewable energy resources.
14.	BEET- 502	<ol style="list-style-type: none"> Create computational models for analysis power systems and able to understand per unit system Analyse a power system network under Symmetrical Conditions to discriminate Positive Sequence, Negative & zero sequence system. Evaluate load flow computations for an interconnected power system. Illustrate power system operation and transient control. Test the stability control of a power system
15.	BEET-505	<ol style="list-style-type: none"> Students can analyze a coordinate of point in Cartesian, Cylindrical and spherical co-ordinate systems. Also interpret the physical interpretation of gradient,divergence and curl. Evaluate the physical quantities of electrostatic fields (Field intensity, Flux density etc.) in dielectric media and free space using the fundamental laws (Coulomb andGauss law). To compute the magnetic field intensity and magnetic flux density due to finite and infinite length of conductor by using Bioat-Savart and Ampere Circuit law. Apply the phenomena of wave propagation in lossy dielectric, loss-less dielectric and perfect conducting medium. Analyze the nature of electromagnetic wave propagation in guided medium by using of transmission line parameters.
16.	BEET- 503 (A)	<ol style="list-style-type: none"> Recent techniques and computer application formodeling of practical and large interconnected powersystem networks using programming languages


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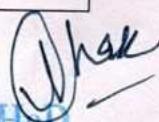
		<ol style="list-style-type: none"> 2. Recent methodologies for simulation and analysis of power system networks like real and reactive powerflows and optimal scheduling. 3. Effect of outage of any important component of power system on the operation and reliability of power systems 4. Algorithm required to find out parameters for monitoring and control of power system in real time from actual measurement data.
17.	BEET- 503 (B)	<ol style="list-style-type: none"> 1. Acquire the knowledge basic sensor characteristics. 2. Classify the different types of sensors and actuators 3. Apply and solve appropriate mathematical equations of temperature sensors 4. Apply and solve appropriate mathematical equations of pressure sensors 5. Apply and solve appropriate mathematical equations of level sensors and display devices
18.	BEET 503(C)	<ol style="list-style-type: none"> 1. Illustrate students with a moderate level understanding of the physics behind the crystal structure of material 2. Employ the students with the understanding of the physics behind the dielectric materials 3. Analyse the students with a thorough understanding of the electrical properties and characteristics of various materials, used in electrical appliance 4. Analyse the students with a thorough understanding of the magnetic properties and characteristics of various materials, used in electrical appliance
19.	BOCT- 504(A)	<ol style="list-style-type: none"> 1. Demonstrate non-linear system behavior by phase plane and describing function methods 2. Perform the stability analysis nonlinear systems by Lyapunov method develop design skills in optimal control problems 3. Derive discrete-time mathematical models in both time domain (difference equations, state equations) and z-domain (transfer function using z-transform) 4. Predict and analyze transient and steady-state responses and stability and sensitivity of both open-loop and closed-loop linear, time-invariant, discrete-time control systems 5. Acquire knowledge of state space and state feedback in modern control systems, pole placement, design of state

		observers and output feedback controllers
20.	BOET- 504 (B)	<ol style="list-style-type: none"> fundamentals of basic communication system, types of noise affecting communication system and noise parameters Need of modulation, modulation processes and different amplitude modulation schemes Different angle modulation schemes with different generation and detection methods. Analyze concept of advanced modulation techniques Apply the knowledge of digital communication and describe the error control codes like block code, cyclic code
21.	BOCT- 504(C)	<ol style="list-style-type: none"> Acquire basic knowledge on the working of various semiconductor converters Develop analysis capability in SCR and Circuits Develop design competence in signal and power using SCR family elements Acquire knowledge on basic power OPAMPS Acquire knowledge on basic PLC and its working
22.	BOCT- 504 (D)	<ol style="list-style-type: none"> To describe Types of Entrepreneurs. Describe basic operation and Major Motives of an Entrepreneur Analyze Market Survey and Research. Formulate a Good Business opportunity.
Electrical & Electronics Engineering: VI Semester		
23.	BEET 601	<ol style="list-style-type: none"> Relate basic semiconductor physics to properties of power devices, and combine circuit mathematics and characteristics of linear and non-linear devices Describe basic operation and compare performance of various power semiconductor devices, passive components and switching circuits Design and Analyze power converter circuits and learn to select suitable power electronic devices by assessing the requirements of application fields.. Formulate and analyze a power electronic design at the system level and assess the performance. Identify the critical areas in application levels and derive typical alternative solutions, select suitable power converters to control Electrical Motors and other industry grade apparatus.
24.	BECT -602	<ol style="list-style-type: none"> Examine the evolution of processor and architecture of 8085, 8086, 80286, 80386, 80486, microcontroller, Pentium processors. Analyze the architecture of 8086 microprocessor along with the addressing mode and comparison with 8088 Compile simple programs for 8085/86 in assembly language Interpret the interfacing of 8086 microprocessor



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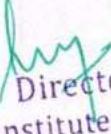
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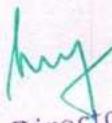
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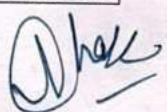
		5. Employ analog to digital converter and set up their interfacing with 8086 microprocessor
25.	BECT-603	<ol style="list-style-type: none"> 1. Acquire knowledge about the time domain representation and classification of discrete time signals and systems 2. Acquire knowledge about the time domain analysis of linear time invariant discrete time systems and representation of total response in various formats. 3. Acquire knowledge about the application of discrete time Fourier transform, Discrete Fourier series and z-transform for discrete time signal representation and analysis of linear time invariant systems discrete time systems 4. Acquire knowledge about the design methods for IIR and FIR filters and their realisation structures. 5. Acquire knowledge about the finite wordlength effects in the implementation of digital filters
26.	BEET -604(A)	<ol style="list-style-type: none"> 1. Understand the operations of different FACTS devices 2. Select the controllers for different contingencies. 3. Analyze the different FACTS devices in different stability conditions. 4. Select an appropriate FACTS device for a particular application
27.	BEET -604(B)	<ol style="list-style-type: none"> 1. Employ the fundamentals of PLC, DCS, and SCADA for automation used in industry. 2. Differentiate the hardware and software requirements of PLC and SCADA. 3. Categorise the basics of man-machine communication based on the communication system 4. Construct the safety instrumented systems on the basis of the requirements of safety. 5. Apply the concept of SCADA in different applications
28.	BEET - 603 (C)	<ol style="list-style-type: none"> 1. Create awareness among students about Non-Conventional sources of energy technologies 2. Enable students to understand various renewable energy technologies and systems. 3. To impart the knowledge of Storage technologies from the autonomous renewable energy sources 4. Equip the students with knowledge and understanding of various possible mechanisms about renewable energy projects
29.	BOCT 605(A)	<ol style="list-style-type: none"> 1. Classify the basic terms of a Power System Grid; explain the importance and objectives of the various dispersed generation units 2. Analysis of various energy management policies; distinguish them according to their priorities


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		<ul style="list-style-type: none"> 3. Describe and classify the modern and innovative application fields of dispersed generation units 4. Describe by drawing a block diagram and explain the operation of the basic part of a smart grid (namely the Micro-grid); quantify its operational, financial and environmental advantages. 5. Acquire the knowledge on power quality of the smart-grid system
30.	BOCT-605(B)	<ul style="list-style-type: none"> 1. Able to get the basics of Power Plants. 2. Able to get the idea about the power generation by renewable and non-renewable energy resources 3. Able to know about the different types of cycles and natural resources used in power plants and their applications. 4. Understanding of Power Plant Economics, Energy Storage including compressed air energy and pumped hydro etc. 5. Discussing environmental and safety aspects of power plant operation
31.	BOCT-603(C)	<ul style="list-style-type: none"> 1. The ability to formulate and then analyse the working of any electrical machine under loaded and unloaded conditions 2. The skill to analyse the response of any electrical machine 3. The ability to troubleshoot the operation of an electrical machine 4. Compare accepted standards and guidelines to select appropriate electrical machines to meet specified performance requirements. 5. Demonstrate an understanding of the fundamental control practices associated with rotating machines (starting, reversing, braking, speed control etc.).
Electrical & Electronics Engineering:VII Semester		
32.	BEET- 701	<ul style="list-style-type: none"> 1. Acquire the knowledge of abnormal conditions to detect faults occurring in a power system. 2. Design electromagnetic, static and microprocessor relays in power system for protecting equipment and personnel 3. Construct the unit protection and over voltage protection scheme in a power system 4. Testing of circuit breakers (methods)
33.	BEET-702	<ul style="list-style-type: none"> 1. Illustrate fundamental concepts of heating. Identify a heating scheme for domestic and industrial applications. 2. Illustrate fundamental concepts of welding; classify welding scheme for domestic and industrial


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		<p>applications.</p> <ol style="list-style-type: none"> 3. Design the interior and exterior lighting systems illumination levels for various purposes light fittings factory lighting- flood lighting-street lighting. 4. Design and investigate operating characteristics of traction motors with respect to speed, temperature and loading condition. 5. Assess the traction system (locomotives) for braking, acceleration and other related parameters, including demand side management.
34.	BEET-703(A)	<ol style="list-style-type: none"> 1. Apply the concepts of neural networks to demonstrate artificial neural network. 2. Analyze the types of architecture and perceptron model 3. Interpret the concept of Fuzzification to design fuzzy logic control system using MATLAB 4. To compute the genetic algorithm method and rules based controller 5. Design real time systems using the application of artificial neural network and fuzzy logic control
35.	BEET-703(B)	<ol style="list-style-type: none"> 1. Have a basic knowledge of the principles of Fuel Cells and its components, types of Fuel Cells, performance characteristics, and applications of Fuel Cells. 2. Have a basic knowledge of Hydrogen Energy, Properties of Hydrogen, Production methods and purification, Storage methods, Environmental benefits and its Applications in the Hydrogen Economy. 3. Have a basic knowledge of Ocean energy resources and technologies including Tidal energy, Wave power devices, OTEC, Bio Photolysis, Ocean currents and Salinity gradient devices. 4. Have a basic knowledge of the principles of Magneto Hydro Dynamic power generation system, and its applications & technologies.
36.	BEET- 703(C)	<ol style="list-style-type: none"> 1. Understand the principles behind generating high DC - AC and impulse voltages 2. Develop equivalent circuit models of the different high voltage generators 3. Perform a dynamic response analysis of high voltage measurement systems 4. Compute the breakdown strength of gas, liquids and solids in insulation systems 5. Understands the transient voltages and their propagation characteristics
37.	BOET-704(C)	<ol style="list-style-type: none"> 1. Understand the axiomatic formulation of modern Probability Theory and think of random variables as an intrinsic need for the analysis of random phenomena

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		<ol style="list-style-type: none"> 2. Characterize probability models and function of random variables based on single & multiples random variables. 3. Evaluate and apply moments & characteristic functions and understand the concept of inequalities and probabilistic limits. 4. Understand the concept of random processes and determine covariance and spectral density of stationary random processes 5. Demonstrate the specific applications to Poisson and Gaussian processes and representation
38.	BOET-704(D)	<ol style="list-style-type: none"> 1. Demonstrate an ability to apply spatial transformation to obtain forward kinematics equation of robot manipulators 2. Demonstrate an ability to obtain the Jacobian matrix and many more to use it to identify singularities 3. To study various types of transducers: electrical, mechanical, electro mechanical and optical etc 4. To learn the concepts of special purpose DAC and different types of automation system 5. Demonstrate knowledge of robot controllers
Electrical & Electronics Engineering: VIII Semester		
39.	BEET- 801	<ol style="list-style-type: none"> 1. Demonstrate non-linear system behavior by phase plane and describing function methods 2. Perform the stability analysis of nonlinear systems by Lyapunov method develop design skills in optimal control problems 3. Derive discrete-time mathematical models in both time domain (difference equations, state equations) and z-domain (transfer function using z-transform) 4. Predict and analyze transient and steady-state responses and stability and sensitivity of both open-loop and closed-loop linear, time-invariant, discrete-time control systems 5. Acquire knowledge of state space and state feedback in modern control systems, pole placement, design of state observers and output feedback controllers
40.	BEET 802	<ol style="list-style-type: none"> 1. Differentiate electric drives systems based on nature of loads, control objectives, performance and reliability. 2. Illustrate the concept of braking to distinguish types of motors in electric drives. 3. Develop capability to choose a suitable DC Motor and Power Electronic Converter involving load estimation and load cycle consideration. 4. Design the frequency controlled converters used in induction motor drives utilising phase controlled converters. 5. Analyze the output waveforms of the converters

		with different types of loads
41.	BEET 803 (A)	<ol style="list-style-type: none"> Understand the need for image transforms different types of image transforms and their properties. Learn different techniques employed for the enhancement of images. Learn different causes for image degradation and overview of image restoration techniques. Understand the need for image compression and to learn the spatial and frequency domain techniques of image compression.
42.	BEET 803 (B)	<ol style="list-style-type: none"> Understand the physiology of biomedical system. Measure biomedical and physiological information Discuss the application of Electronics in diagnostics and therapeutic area Analyze where and how sensors are used in healthcare. Study design parameter of ECG, EEG.
43.	BEET 803 (C)	<ol style="list-style-type: none"> Understand principle of energy conversion,, two-pole machines and Kron's primitive machine Mathematical modelling for analysis of machine in stationary and rotating reference frame Examine the transient behaviour of the machine when subjected to sudden load change or during fault Evaluate cost of practical design of such non linear machine for the design of industrial electrical drives Design a high performance sensor less drive system with optimal dynamic response

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Annexure-VII

Course Outcome Computer science & Engineering

Department of Computer Science & Engineering: III Semester		
S.No.	Course Code	Course Outcome
1.	ECT-003	<ol style="list-style-type: none"> 1. Apply the boolean algebra techniques for minimization of digital functions. 2. Analyze combinational logic circuits using bread board and digital logic IC. 3. Implement Sequential circuits using flip flops and counters. 4. Examine the digital logic families and semiconductor memories for best digital IC parameters. 5. Design the digital circuits for synthesis and simulation of combinational and sequential circuits using VHDL
2.	AHT-007	<ol style="list-style-type: none"> 1. Understand the nature and objective of technical communication relevant for the work place 2. Evaluate efficiency as fluent communicators by learning voice dynamics using various phonetics. 3. Analyse inputs by presentations skills to Enhance confidence in face of diverse audience in personality development 4. Utilize the technical writing for the exposure of dimensions (public speaking, presentations, group discussion)of technical communication. 5. Assess skills to promote technical competences/adhere to ethical standards in technical communication, including proper citation and plagiarism.
3.	CST-003	<ol style="list-style-type: none"> 1. Apply data structure concepts for realistic problems with respect to time and space complexity. 2. Apply memory representation for stack,queue and linked list data structure. 3. Implement given linear and non-linear data structure algorithm 4. Analyze non-linear data structure for finding the shortest path in a given real world problem. 5. Evaluate the searching and sorting time complexity for a given data structure
4.	CST- 002	<ol style="list-style-type: none"> 1. Solve set theory problem and order of set based on algebraic structure . 2. Apply mathematical function like one, one, onto, of function to solve composite function with given range of number system. 3. Utilize mathematical algebraic structure like natural number, real number with binary operation* and solve problem related to ring, integral domain and field under the given operatation. 4. Analyze numerical difference, recurrence relation equation , pigeon hole principal, and calculate numerical value using counting technique ,characterstics method, and generating function method. 5. Analyze graph using directed graph , euler graph, undirected

		graph, and solve to related problems based on graph like kornisberg bridge problem
5.	CST-004	<ol style="list-style-type: none"> 1. Apply key engineering fundamentals with Object-Oriented Programming to solve engineering problems. 2. Use principles of abstraction and encapsulation for design of experiments, analysis and interpretation of data for a given class. 3. Apply templates to conduct investigation of complex problems for creating generic functions. 4. Optimize the design and development of Standard Template Library (STL) containers of a given problem using modern tool. 5. Evaluate and Formulate Object-Oriented Design Patterns for solving real-world programming problems in a team.
6.	CST-005	<ol style="list-style-type: none"> 1. Apply object-oriented concept to solve real world problem. 2. Illustrate the process of structuring the data using lists, tuples, and dictionaries.. 3. Design a built-in functions and operations to navigate the file system. 4. Investigate open source python modules Numpy, Pandas, Matplot lib, Flask submit report. 5. Design Data Analytics projects as a team using moden tools and techniques for multidisciplinary environment.
7.	SAI-301	<ol style="list-style-type: none"> 1. Apply the concepts of machine learning including supervised and unsupervised learning and model evaluation techniques for the complex engineering problems. 2. Analyze complex engineering problems reaching substantiated coclusions using machine learning algorithms for classification, regression, and clustering tasks. 3. Examine the technique for dimensionality reduction and feature selection to improve model performance and design system components. 4. Determine the clustering, pattern recognition and computer vision technique while considering soceitil issues & consequent responsibility 5. Recommend machine learning and pattern recognition techniques for real-world problems, recommendation systems, and fraud detection, committing to professional & ethical responsiblities
8.	SAN-301	<ol style="list-style-type: none"> 1. Apply prototyping techniques to design and develop sophisticated mobile interfaces. 2. Understand Android Platform, its architecture and features. 3. Analysis of hardware components and security issues in Android.

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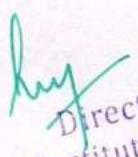
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		<ol style="list-style-type: none"> 4. Evaluating multimedia, camera and location based services in Android application. 5. Creating and implementing test cases to analyze performance of Android application.
9.	SCS-301	<ol style="list-style-type: none"> 1. Apply the encryption algorithm to make web services more secure for cultural considerations 2. Apply the engineering mathematics model to implement Intrusion Detection and Prevention techniques. 3. Analyse the security awareness techniques for Cyber Security Vulnerabilities and Safeguards. 4. Evaluate the performance and troubleshoot cyber security systems using modern engineering and IT Tools 5. Design web application, Services and Servers for societal and environmental benefits
10.	SAR-301	<ol style="list-style-type: none"> 1. Apply engineering techniques to develop application for 3D virtual reality in practical scenarios 2. Select advanced VR tools to customize the VR and 3D interface. 3. Analyze the effectiveness of 3D user interfaces for real-world engineering problems using modern and IT tools. 4. Evaluate the impact of VR in education, health, and other domains to assess societal safety legal and cultural issues 5. Create new VR applications tailored to specific industries or educational needs.
11.	MEP-002	<ol style="list-style-type: none"> 1. Simplify complex objects for drawing by using orthographic projection Technique. 2. Apply prior knowledge of math, science & projection techniques to construct drawing of 2-D surfaces and 3-D solids. 3. Adapt to Auto CAD commands to Construct 2-D surfaces & 3-D solids. 4. Analyze the given 2-D & 3-D objects based on it's actual shape, size and intricacies as an individual and in a team. 5. Make an effective documentation for all the drawing problems and submit its report.
12.	SDS-301	<ol style="list-style-type: none"> 1. Apply concepts of information management, including data organization, storage, retrieval, and dissemination, for effective information handling. 2. Apply information governance frameworks and compliance standards to ensure the ethical, legal, and secure management of information. 3. Analyze advanced techniques for efficient information retrieval and analysis, utilizing tools and technologies to extract valuable insights from large datasets 4. Implement information management tools and systems, including databases, content management systems, and data analytics platforms.


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		5. Implement Cultivate Effective Communication and Collaboration in Information Management
13.	SIT-301	<ol style="list-style-type: none"> 1. Apply units of measurement to sensor parameters and force, strain, and tactile sensors in various applications. 2. Utilize sensors for position, displacement, and level measurements. 3. Analyze and compare sensor technologies based on materials and classify them based on their characteristics and applications. 4. Evaluate the importance of surface processing in sensor technologies and measure the velocity and acceleration using appropriate sensors.
14.	CSP-004	<ol style="list-style-type: none"> 1. Apply Object Oriented Procedures to solve the real world problem. 2. Analyze the output of given problem. 3. Conduct Experiment as an Individual or team using modern tool(ReSharper C++, HeapTrack, PVS-Studio). 4. Implement the given problem using the dynamic memory allocation techniques.
15.	CSP-003	<ol style="list-style-type: none"> 1. Apply appropriate data structures like arrays, linked list, stacks and queues to solve real world problems. 2. To design algorithms for given applications using non-linear data structures like trees and graphs. 3. Execute experiments as an individual or as team members using data structure algorithm in 'C' Language 4. Analyze given techniques for searching and sorting algorithm. 5. To write effective lab report based on given experiments
16.	CSP-005	<ol style="list-style-type: none"> 1. Apply Python's data types, control structures , loops, and conditionals statement effectively. 2. Implement solutions using appropriate data structures and algorithms. 3. Analyze and test the given output using morden tools. 4. Analyze of data structures (e.g., lists, dictionaries) and Write effective reports in prescribed format. 5. Develop real-world projects in various domains for web scraping, API interaction, and Flask for web development.
17.	CSP-006	<ol style="list-style-type: none"> 1. Apply technical knowledge in an industry to formulate real world engineering problems 2. Apply ethical principles based on relevant knowledge, concepts and theories within an industrial organization 3. Write effective report for work done in mini project 4. Analyze the functioning of internship organization and recommend changes for improvement in processes 5. Evaluate industrial problems to find possible solutions using modern engineering and IT Tools.
18.	MBAT302	<ol style="list-style-type: none"> 1. To understand the concepts of project, its life cycle and


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		<p>planning for successful project.</p> <ol style="list-style-type: none"> 2. To understand the hierarchy or the organization structure for a project & the drawbacks that can lead to failure. 3. To determine the sources of finance available for the companies. 4. To learn the different techniques used for project monitoring and implementation. 5. To learn the winding - up of the project and its procedures. 6. To determine the effective strategies of project management that can lead to better decision making. 7. To understand the human aspects associated with project management.
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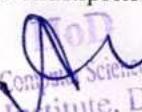
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19.	AHT-006	<ol style="list-style-type: none"> 1. Apply the concept Laplace transformation in solving real life problems. 2. Apply the concept Fourier transformation to evaluate engineering problems. 3. Evaluate the roots of algebraic and transidental equations. 4. Solve the problems related to interpolation,diffrentiation and integration and the solution of differential equation. 5. Apply the concept of correlation, regression, moments, skewness and kutosis and curvefitting in solving computor sciences and enginering problems.
20.	AHT-008	<ol style="list-style-type: none"> 1. Apply the significance of Universal Human Values in various aspects of life and scoiety 2. Examine the innate desires and golas common to all people while considering the sociaetal , environment and economic context. 3. Determine the straegies to promote and integrate Universal Human Values in Personals and professional life 4. Analyze harmony in nature and existence , and work out their mutually fulfilling participation in the nature. 5. Write a comprehensive report on implication of adopting a holistic view on ethical human conduct
21.	CST-007	<ol style="list-style-type: none"> 1. Solve the given multiplication problem using Booth's Multiplication Algorithm for the knowledge of engineering & Science. 2. Apply basic knowledge of mathematics and logical operations to efficiently organised the data in memoy. 3. Invesigate the design issues of circuits in order to accomplish the solution to complex problem. 4. Apply morden tools and techniques to analyse the computer sysem performance. 5. Inspect the need for I/O,pipelining and memory organization concept to achieve computer system performance.
22.	CST-008	<ol style="list-style-type: none"> 1. Apply the knowledge of engineering fundamentals with java

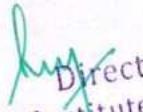
		<p>programming construct to solve a problem.</p> <ol style="list-style-type: none"> 2. Analyze the role of packages and interfaces to build a java application for a problem. 3. Identify a real world problem to implement exception handling, file handling and multithreading in java 4. Select appropriate techniques to design and Develop a project of web applications based on JDBC, RMI and Servlet methodologies for a given system. 5. Design GUI based JAVA enterprise applications using event driven programming
23.	CST-009	<ol style="list-style-type: none"> 1. Apply the concept of mathematical models to develop theoretical computer science machine. 2. Apply turing machine to propose computation solution. 3. Analyse a given problem is decidable or not. 4. Design an automata for any given pattern and to write context free grammar for any language. 5. Evaluate regular expression for any string pattern.
24.	CST-006	<ol style="list-style-type: none"> 1. Identify and apply the provisions of the IT Act.2008 for conducting investigation in cyber crime. 2. Apply cyber laws to protect Internet community from cyber attacks and help professionals to commit ethics and their responsibilities. 3. Analyse the performance of cyber security system using modern engineering and IT tools. 4. Analyse preventive techniques against the attacks using modern techniques and IT Tools. 5. Evaluate different types of cyber threats and vulnerabilities in various computing systems.
25.	SAI-401	<ol style="list-style-type: none"> 1. Apply different components of deep learning architectures and their impact on visual computing tasks. 2. Apply deep learning algorithms and techniques to solve real-world problems in visual computing. 3. Analyze the performance of deep learning models in image recognition and computer vision. 4. Analyze the effectiveness of pre-processing techniques and data augmentation strategies for improving model performance. 5. Evaluate novel insights and visualizations from deep learning models to provide meaningful interpretations for real-world visual data.
26.	SCS-401	<ol style="list-style-type: none"> 1. Apply different encryption techniques to solve real world Engineering problem to achieve higher degree of network security. 2. Design a security solutions for the computing system on the basis of vulnerabilities. 3. Identify the authentication schemes for membership

		<p>authorization.</p> <ol style="list-style-type: none"> 4. Analyze and model the Symmetric cryptographic algorithms for information security. 5. Evaluate security mechanisms on the basis of key ciphers and Hash functions.
27.	SAN-401	<ol style="list-style-type: none"> 1. Apply RxJava to handle asynchronous operations in Android apps. 2. Analyze the flow of data through an RxJava pipeline in complex use cases. 3. Evaluate the readability and maintainability of code written with RxJava. 4. Design and implement complex Android features or applications using RxJava. 5. Create custom RxJava operators to address unique project requirements.
28.	SAR-401	<ol style="list-style-type: none"> 1. Apply 3D interaction techniques in practical scenarios using modern and IT tools 2. Apply custom software solutions for VR and 3D interfaces 3. Analyze the effectiveness of 3D user interfaces for real-world engineering problems 4. Evaluate the impact of VR in education, medicine, and other domains to assess societal safety legal and cultural issues 5. Create new VR applications tailored to specific industries or educational needs
29.	SDS-401	<ol style="list-style-type: none"> 1. Apply key concepts with a focus on distributed computing paradigms such as Hadoop and Spark 2. Apply techniques for distributed model training, optimization, and evaluation, ensuring demands of big data applications 3. Analyse insights from continuously arriving data streams in a real-time manner. 4. Implement strategies for efficient data retrieval and manipulation, ensuring that data is accessible and responsive even as the volume of information grows. 5. Develop scalable data science solutions for cloud environment.
30.	SIT-401	<ol style="list-style-type: none"> 1. Apply the advanced cloud base tools to find solutions of a problem. 2. Compare and contrast different cloud architectural patterns and their suitability for different use cases. 3. Analyze case studies of organizations that have successfully implemented cloud architectures and identify best practices. 4. Evaluate the reliability, availability, and security of services deployed from the cloud, as well as their performance and scalability. 5. Develop a cloud-based application using a chosen cloud service development environment.
31.	CSP-007	<ol style="list-style-type: none"> 1. Apply logic gates to implement multiplexer.


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		<ol style="list-style-type: none"> 2. Perform the experiment using modern tools (Digital Design Circuit) as an individual or as a team. 3. Analyze the accuracy of circuit output a given inputs. 4. Analysis and interpretation of data to identify the techniques to be used to solve the given problem. 5. Construct the effective report in prescribed documentation formate.
32.	CSP-008	<ol style="list-style-type: none"> 1. Apply the basic syntax, structure and concepts of Java programming. 2. Implement the java programming packages, interface and multithreading to develop web base application. 3. Analyze the output for a given problem 4. Conduct experiments as an individual or as a team by using modern tools(visual studio, net beans) 5. Write an effective report lab based on experiments
33.	CSP-009	<ol style="list-style-type: none"> 1. Apply basic and advanced Unix commands to organise file system. 2. Apply the shell scripting commands to customised the user work environment. 3. Identify the types of IPCs, compare and contrast the same. 4. Write Regular expressions for pattern matching and apply filters for a specific task 5. Construct the effective report & design prescribed documentation.
Department of Computer Science & Engineering: V Semester		
34.	BCST-501	<ol style="list-style-type: none"> 1. Apply the engineering knowledge concepts for operating system and their functions to solve engineering problem. 2. Analyze and formulate the problems of various processes and scheduling algorithms. 3. Apply and design the solution for deadlock & recovery techniques in real or simulated scenarios and assess their effectiveness. 4. Conduct investigation of various secondary storage algorithms and techniques for complex problems. 5. Evaluate the performance of windows, Linux and mac os based on various performance criteria for reasoning informed by the contextual knowledge of engineering practice.
35.	BCST-502	<ol style="list-style-type: none"> 1. Apply the functionality of Layered Architecture of computer networking & layers Protocols for gaining Engineering Knowledge 2. Examine the performance of network based on the principles of routing Protocols. 3. Ability to Identify the concept of data link layer protocols to detect the error in data Transmission. 4. Apply appropriate addressing Techniques and sub-netting in IPV4 Protocol.

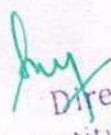

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		<p>5. Ability to Conduct Investigation to different types of services of data transfer using Transport layer protocols.</p>
36.	BCST-503	<p>1. Calculate and compare efficiency of standard algorithms for problems in fundamental areas of computer science and engineering using asymptotic complexity.</p> <p>2. Apply prior knowledge standard algorithm design techniques and mathematics to solve fundamental problems in computer science and engineering</p> <p>3. Apply prior knowledge of standard algorithm design techniques and mathematics to design efficient algorithms for moderately difficult new computational problems.</p> <p>4. Investigate as an individual and in a team 10 algorithm design techniques available in the literature and submit a report containing their relative merits and demerits based on performance measures.</p> <p>5. Evaluate mathematically the quality and correctness of the new proposed novel solutions of a given real world engineering problem.</p>
37.	BCST 504 (A)	<p>1. Apply the principles of Data Communication and protocols used in communication.</p> <p>2. Implement channel allocation, framing, error and flow control techniques.</p> <p>3. Analyze computer science theory and software development fundamentals to produce computing-based solutions</p> <p>4. Identify a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</p> <p>5. Evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline</p>
38.	BCST 504 (B)	<p>1. Apply pattern recognition algorithms to solve real-world classification problems.</p> <p>2. Analyze the results of pattern recognition algorithms and analyze their performance metrics.</p> <p>3. Design a novel pattern recognition system for a specific problem.</p> <p>4. Develop pattern recognition models using machine learning libraries.</p> <p>5. Evaluate the trade-offs between accuracy and computational complexity in pattern recognition systems.</p>
39.	BCST 504 (C)	<p>1. Apply the concepts of Internet and Web Technologies.</p> <p>2. Analyze a given website and Prepare limitations of the the given website</p> <p>3. Create custom reports, customize/personalize layouts, integrate it with web applications, and protect sensitive data.</p>

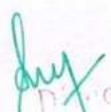
		<ol style="list-style-type: none"> 4. Design website or web application for a given scenario using Modern Tools. 5. Investigate available modern website design as a individual or as Team.
40.	BCST 504 (D)	<ol style="list-style-type: none"> 1. Apply the knowledge of engineering fundamentals with java programming construct to solve a problem. 2. Analyze the role of packages and interfaces to build a java application for a problem. 3. Identify a real world problem to implement exception handlling, file handlling and multithreading in java 4. Select appropriate techniques to design and Develop a project of web applications based on JDBC, RMI and Servlet methodologies for a given system. 5. Design GUI based JAVA enterprise applications using event driven programming
41.	BOCS-505 (A)	<ol style="list-style-type: none"> 1. Apply the concepts of elemtry and structured data types in programming to formulate the problem to reach the substantiated conclusion. 2. Apply suitable programming paradigm for the application using modern engineering and IT tools 3. Analyze sequence control mechanisms, including implicit and explicit sequence control. 4. Evaluate the use of recursion and exception handling in programming to design a website using engineering problems. 5. Create a program in distinct language paradigms that meet the specific needs with appropriate environmental consideration
42.	BOCS-505 (B)	<ol style="list-style-type: none"> 1. Apply the appropriate techniques to model and analyze systems involving queues and waiting times. 2. Apply discrete event simulation techniques to create a single-server single queue model. 3. Analyze first and second order linear and non linear systems in time and frequency domain. 4. Evaluate the efficiency of discrete event simulation in representing dynamic systems. 5. Create mathematical models for engineering systems in distinct domains and derive analogies
43.	BOCS-505 (C)	<ol style="list-style-type: none"> 1. Apply different encyption techniques to solve real world Engineering problem to achieve higher degree of network security. 2. Design a security solutions for the computing sytem on the basis of vulnarabilties. 3. Analyze encryption techniques in real or simulated scenarios to assess their effectiveness. 4. Evaluate security mechanisms using rigorous approaches by key ciphers and Hash functions 5. Demonstrate network security applications , IPSEC, Firewall,

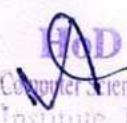
		IDS, for web security
44.	BOCS-505(D)	<ol style="list-style-type: none"> 1. Apply the elements and process of successful entrepreneurial ventures in creating new ventures. 2. Apply the reasoning informed by contextual knowledge to compare the components of the entrepreneurial ecosystem, existing business models, and different organizational structures. 3. Analyze the feasibility and potential of entrepreneurial opportunities and various sources of raising finance for start-up ventures to effectively work as an individual or a member of team 4. Evaluate decision-making process, principles, and venture finance knowledge for entrepreneurial development and pitching to manage projects in multidisciplinary environments. 5. Create a business model canvas using design system components for societal and environmental considerations.
45.	SAI-501	<ol style="list-style-type: none"> 1. Apply the concepts in deep machine learning, for neural networks, activation functions, and backpropagation. 2. Apply the mathematical foundations of deep learning, including linear algebra, calculus, and probability theory to develop nural nework Algorithm. 3. Analyze appropriate optimization techniques to improve the performance of deep learning models. 4. Demonstrate the impact of hyperparameters and architecture choices on the performance of a deep learning model. 5. Evaluate deep learning models using decision-making to develop real-world applications.
46.	SCS-501	<ol style="list-style-type: none"> 1. Select the Wrong-way and right-way risk to calculate the exposure of risk for the societal benefit 2. Analyse the performance of Rating-based models for credit portfolio view using principle of engineering Mathematics 3. Analyse the performance of Rating-based models for credit portfolio view using principle of engineering Mathematics 4. Create the Credit Metrics of business models using portfolio view in order to provide valid conclusion
47.	SAN-501	<ol style="list-style-type: none"> 1. Apply various concepts of mobile programming that make it unique from programming for other platforms. 2. Identify rapid prototyping techniques to Design sophisticated mobile interfaces. 3. Analysis Program mobile applications for the Android operating system that use basic and advanced phone features. 4. Develop UI based Mobile Application using Android Studio. 5. Deploy applications to the Android marketplace for distribution.
48.	SAR-501	<ol style="list-style-type: none"> 1. Describe the integration of digital technologies in the manufacturing industry.


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		<ol style="list-style-type: none"> 2. Apply digital manufacturing concepts to solve real-world problems. 3. Analyze the impact of digitalization on traditional manufacturing processes. 4. Evaluate the advantages and disadvantages of implementing digital technologies in manufacturing. 5. Design a digital manufacturing strategy for a specific product in a Group
49.	SDS-501	<ol style="list-style-type: none"> 1. Apply technique to manipulate and analyze large datasets using Python or R. 2. Apply effective data visualizations technique to find complex patterns and trends in diverse data sets. 3. Analyze the fundamentals of machine learning algorithms and their applications in data science. 4. Implement scalable data architectures that support storage and processing of large and dynamic datasets. 5. Interpret practical experience in distributed computing and parallel processing to analyze and extract insights from big data.
50.	SIT-501	<ol style="list-style-type: none"> 1. Apply microcontrollers to solve real-world engineering problems. 2. Analyze the basic architecture and operation of microcontrollers. 3. Design digital circuits using hardware description language (HDL). 4. Develop Program microcontrollers using assembly language and embedded C. 5. Demonstrate microcontrollers with peripherals using analog-to-digital converters (ADCs), digital-to-analog converters (DACs), and timers.
51.	BSCP-501	<ol style="list-style-type: none"> 1. Apply operating system algorithms for scheduling ,page replacement and memory management to solve the given numerical problem. 2. Implement UNIX I/O system calls to create, read, and write files, gaining hands-on experience in file and data manipulation. 3. Implement the CPU scheduling Algorithm and memory management algorithm. 4. Analyze the output of implemented solution of a given real world engineering problem with multiple inputs to ensure the correctness and efficiency of algorithm. 5. Make an effective laboratory report based on experiments performed as per given format.
52.	BSCP-502	<ol style="list-style-type: none"> 1. Apply the knowledge of different network components, transmission mediums and tools to solve various problems of communication.


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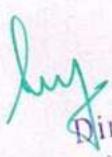

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		<ol style="list-style-type: none"> 2. Analyse and configure protocols concerning various network technologies over different mediums and layers 3. Design and develop different network design and logical models of networking to solve network related problems. 4. Utilize knowledge of modern network simulation tools to propose solution for efficient working of networks for real world problems. 5. Make use of various troubleshooting methods to overcome networking problems.
53.	BSCP-503	<ol style="list-style-type: none"> 1. Apply knowledge of algorithm design techniques and mathematics to evaluate and select the best algorithm for a given real life engineering problem. 2. Design pseudo code for the solution of a given real world engineering problem using Standard Algorithm Design techniques. 3. Implement the pseudo code for the solution of a given real world engineering problem. 4. Analyze the output of implemented solution of a given real world engineering problem with multiple inputs to ensure the correctness and efficiency of algorithm. 5. Make an effective laboratory report based on experiments performed.
54.	BSCT-506	<ol style="list-style-type: none"> 1. Apply Python programming to retrieve standard libraries and commonly used modules. 2. Apply the fundamental concepts of object-oriented programming (OOP). 3. Write Python scripts to solve simple computational problems and perform basic data manipulation tasks. 4. Analyze and debug Python code to identify and rectify logical errors, syntax errors, and runtime exceptions. 5. Develop Python-based solutions for specific domain applications, for data analysis, web scraping, or scientific simulations.
55.	BSCT-508	<ol style="list-style-type: none"> 1. Understand organizational issues and their impact on the organization and employees. 2. Adapt relevant knowledge, concepts and theories within an industrial organization, practice and ethics 3. Identify industrial problems and learn possible solutions 4. Apply technical knowledge in an industry to learn real world problems 5. Demonstrate effective group communication, presentation, self-management, and report writing skills
Department of Computer Science & Engineering: VI Semester		
56.	BCST-601	<ol style="list-style-type: none"> 1. Apply microprocessor techniques to solve problems. 2. Analyze 8086 microprocessor for a given problem. 3. Examine 8085 and 8086 microprocessor using assembly


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		<p>language programs.</p> <ol style="list-style-type: none"> 4. Implement assembly language program in 8086 microprocessor. 5. Design small circuits using microcontrollers.
57.	BCST-602	<ol style="list-style-type: none"> 1. Apply the knowledge of theory of computation in specifying and recognizing tokens 2. Design compiler generators for a given CFG(Context-Free Grammar) using modern compiler construction tools. 3. Convert the given source program instruction into Intermediate code using three address code and then into target code. 4. Analyze a given program and minimize the code by using optimizing techniques. 5. Select an appropriate register allocation strategy for a given segment of assembly code.
58.	BCST-603	<ol style="list-style-type: none"> 1. Apply exploratory data analysis using popular tools and techniques. 2. Apply statistical methods and hypothesis testing to draw meaningful conclusions from data. 3. Apply various visualization tools and techniques based on the nature of the data & objective. 4. Implement machine learning algorithms to real-world datasets for predictive modeling and classification tasks 5. Elaborate how to leverage distributed computing frameworks, such as Apache Spark on massive datasets.
59.	BCST-604(A)	<ol style="list-style-type: none"> 1. Apply the basic concepts of graph theory, including vertices, edges for the solution of well defined problems. 2. Apply graph algorithms on real world problems for reaching substantiated conclusions using principles of mathematics. 3. Examine key properties and characteristics of graphs to design system components and processes. 4. Select the appropriate graph to design a system, component or process within realistic constraints individually or in group. 5. Interpret practical applications of graph theory in diverse fields of computer science, transportation, social networks, and biology effectively for lifelong learning.
60.	BCST-604(B)	<ol style="list-style-type: none"> 1. Apply pre-processing techniques for data cleaning. 2. Identify and design multidimensional models for data warehousing 3. Analyze performance of algorithms for Association Rules, Classification and Clustering techniques. 4. Evaluate the data mining algorithms to solve real world engineering problems. 5. Develop research interest towards advances in data mining.
61.	BCST-604(C)	<ol style="list-style-type: none"> 1. Apply computer graphics concepts, techniques, and algorithms to solve practical problems.


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		<ol style="list-style-type: none"> 2. Apply multimedia techniques to develop complex multimedia projects. 3. Analyze the selection of appropriate visualization techniques for diverse data types. 4. Investigate visual representations using principles of 2D and 3D graphics. 5. Evaluate the use of graphic software tools to produce interactive multimedia content
62.	BCST-604(D)	<ol style="list-style-type: none"> 1. Implement software quality management principles to assess and enhance software quality in software projects. 2. Apply software testing tools and techniques to identify and correct software defects. 3. Analyze the software development process to identify potential quality risks. 4. Compare ISO9000 and CMM-based quality management models in quality assurance. 5. Evaluate the effectiveness of software quality assurance processes.
63.	BOCS - 605(A)	<ol style="list-style-type: none"> 1. <i>Make use of</i> the fundamental concepts of signals and systems along with linear algebra, numerical techniques, and engineering mathematics in the processing and analyzing real-world signals. 2. Apply the properties of transformation techniques in the designing and analysis of digital systems. 3. Analyze signal processing systems for improvements to existing DSP techniques. 4. Evaluate the performance of digital systems using DSP Techniques.
64.	BOCS - 605(B)	<ol style="list-style-type: none"> 1. Understand the theory of Artificial intelligence and Machine Learning. 2. Understand the Knowledge representation issues and concept learning. 3. Apply decision tree learning and artificial neural networks. 4. Apply Bayesian learning using bayes theorem, naive bayes classifier and EM Algorithm. 5. Generate a report on Instance based learning and reinforcement learning
65.	BOCS - 605(C)	<ol style="list-style-type: none"> 1. Apply a wide variety of testing techniques in an effective and efficient manner.. 2. Demonstrate the integration testing which aims to uncover interaction and compatibility problems as early as possible. 3. Analyze requirements to determine appropriate testing strategies. 4. Compute test coverage and yield according to a variety of criteria. 5. Evaluate the limitations of a given testing process and provide


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		a succinct summary of those limitations.
66.	BOCS - 605(D)	<ol style="list-style-type: none"> 1. Apply the knowledge to gain insight of Distributed System for solving real world problems 2. Apply the modern software and technical skills in order to control concurrency in distributed transactions 3. Identify and formulate the broader domain areas where the concept of Distributed System can be used 4. Develop various web applications and automate the real time problems 5. Design innovative solutions and architectures for complex distributed systems and cloud applications, incorporating best practices and advanced cloud technologies
67.	BCSP -601	<ol style="list-style-type: none"> 1. Apply microprocessor techniques to solve problems. 2. Analyze 8086 microprocessor for a given problem. 3. Examine the output of 8086 and 8086 microprocessor using assembly language program 4. Implement 8086 assembly language program using modern tools. 5. Design small circuits using microcontroller.
68.	BCSP -602	<ol style="list-style-type: none"> 1. Design lexical analyzer and parser for a given language using modern tools 2. Implement the scanner and parser for a given language using modern programming language. 3. Analyze the output of the scanner and parser to see whether scanner identifies the tokens of given language and parser correctly parses the given input that confirms to the grammar of the language. 4. Investigate as an individual and in a team latest research on compiler development available in the literature and submit a report. 5. Make an effective laboratory report based on experiments performed.
69.	BCSP -603	<ol style="list-style-type: none"> 1. Apply techniques to extract data from various sources, including databases, APIs, and web scraping to develop proficiency in Data Collection 2. Apply various data analysis techniques, such as regression, clustering, and hypothesis testing. 3. Develop hands-on experience in using these tools to perform real-world data analytics tasks such as Python, R, Excel, 4. Investigate case studies and practical examples from industries to understand the impact of data analytics on decision-making processes
70.	BCSP -606	<ol style="list-style-type: none"> 1. Apply the need for simulation/implementation for the verification of mathematical functions. 2. Apply the main features of the MATLAB/SCILAB program

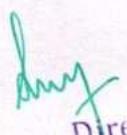
		<p>development environment to enable their usage in the higher learning.</p> <ol style="list-style-type: none"> 3. Analyze the program for correctness and determine/estimate/predict the output and verify it under simulation 4. Implement simple mathematical functions/equations in numerical computing environment using MATLAB/SCILAB. 5. Interpret and visualize simple mathematical functions and operations thereon using plots/display.
71.	BCSP -607	<ol style="list-style-type: none"> 1. Identify and Define a specific engineering problem or challenge. 2. Apply project management principles to the planning and execution of a small project using modern tools and techniques. 3. Collaborate effectively within a team, demonstrating the ability to communicate ideas, delegate tasks, and resolve conflicts. 4. Apply theoretical concepts taught in earlier courses to tackle real-world engineering challenges as a team or individual.

Department of Computer Science & Engineering: VII Semester

		<ol style="list-style-type: none"> 1. Differentiate the relationship between C# code and its corresponding Intermediate Language (IL) representation. 2. Apply the features of object oriented programming concepts in designing classes of a given real world engineering problem. 3. Design C# solution for web development using <u>ASP.NET</u>. 4. Analyze the efficiency and performance of .NET applications and also identify areas for optimization and improvement. 5. Evaluate comprehensive and visually appealing Crystal Reports that meet the specific reporting needs of a project individually or in team.
72.	BCST-701	<ol style="list-style-type: none"> 1. Apply the prior knowledge of structure of Ad Hoc network and its basic characteristics in designing of Ad Hoc network of a given scenario. 2. Apply the concept of MAC protocols and its classification in a given scenario. 3. Identify and apply the algorithms and applications of Routing protocols and its classification for different scenarios. 4. Analyze the basic wireless networks: Cellular architecture and IEEE 802.11 standards. 5. Evaluate the various security protocols for Ad HOC wireless network for designing real-world Ad HOC Network in a team.
73.	BCST-702	<ol style="list-style-type: none"> 1. Apply different user interface design component to make GUI functionality better. 2. Identify the importance of human characteristics and business functions. 3. Analyze screen design principles to make intelligent choices in
74.	BCST-703(A)	

		<p>interface design based on technical concerns.</p> <ol style="list-style-type: none"> 4. Design the window, device and screen based controls through navigation schemes and make overall structure of a GUI that allows users to find their way around. 5. Implement HCI techniques to develop effective UIs using Adobe XD, Sketch, Proto.io, Marvel
75.	BCST-703(B)	<ol style="list-style-type: none"> 1. Apply RISC and CISC architectures to categorize instructions, and understand addressing modes using modern IT tools. 2. Identify and examine pipeline hazards and their solutions to conduct investigations of complex Problems. 3. Analyze the internal organization of a GPU for engineering and society. 4. Design strategies for high-performance interconnection networks to solve complex engineering problems. 5. Evaluate the design issues with multi-cycle pipelines and the case study of the MIPS R4000 pipeline in teamwork.
76.	BCST-703(C)	<ol style="list-style-type: none"> 1. Recognize the feasibility of applying a soft computing methodology for a particular problem. 2. Implement the solutions by various soft computing approaches for finding the optimal solutions of a particular problem. 3. Compare the solutions by various soft computing approaches for finding the solutions of a problem. 4. Design the methodology to solve problem and decision making using fuzzy logic, genetic algorithms and neural networks 5. Evaluate solutions by various soft computing approaches for finding the optimal solutions
77.	BCST-703(D)	<ol style="list-style-type: none"> 1. Demonstarte the engineering knowledge of Internet of Things and web of things including their convergences ,applications ,strategic research direction ,future technologies and related standarization. 2. Apply IOT design and development concepts for iot solutions. 3. Apply basic IoT solutions to various industries understanding the value creation and implications in contexts such as future factories, retail, oil and gas, home management, and eHealth. 4. Investigate reasoning informed by the contextual knowledge in IoT application domain to analyze their performance. 5. Analyze various security and privacy issues in IOT and future scope of security and privacy issues.
78.	BOCS-704(A)	<ol style="list-style-type: none"> 1. Apply the engineering principles of Big Data Analytics concepts and its applications to solve real world engineering problem. 2. Design the CLI commands to query the hadoop framework. 3. Demonstrate the functionality of Map Reduce Framework for distributed data. 4. Analyze the fundamental tools and methods of data analysis

		<p>and statistics.</p> <p>5. Apply modern tools MapReduce & bigdata to solve real world distributed data problems as a team.</p>
79.	BOCS-704(B)	<ol style="list-style-type: none"> 1. Make use of digital image fundamentals for image transformation. 2. Implement basic image processing algorithms or techniques. 3. Demonstrate the Image Segmentation and Morphological Image Processing 4. Compare color models,pseudo color image processing and full color image processing. 5. Summarize Image restoration using degradation model,Least Mean Square Filters,Constrained Least Squares Filters.
80.	BOCS-704(C)	<ol style="list-style-type: none"> 1. Utilize ethical hacking methodologies to assess and enhance system security. 2. Implement hacking tools to generate hypothetical attack scenarios for security testing purposes. 3. Conduct a simulated web application security assessment to identify potential vulnerabilities. 4. Develop report writing and mitigation for tacking progress and measure effectiveness. 5. Apply the concepts of ethical hacking using tools like Nmap,Angry IP Scanner,Burp Suite.
81.	BCSP-701	<ol style="list-style-type: none"> 1. Apply the knowledge of .NET's C# language syntax and semantics to write and execute given program 2. Create C# programs based on object oriented principles for a given problem. 3. Write a GUI application for a given problem using ADO .Net 4. Develop business oriented web based solution for ERP ,Using modern tools. 5. Develop client-server application to solve real world industrial problem using ASP.Net.
82.	BCSP-702	<ol style="list-style-type: none"> 1. Implement the TCP for wireless adhoc and sensor networks. 2. Illustrate wireless networks. 3. Identify the various routing algorithms for different scenarios. 4. Develop wireless adhoc network for various constraints and scenarios. 5. Design the environment for appropriate physical and mac layer protocols in wireless adhoc networks.
83.	BCSP-705	<ol style="list-style-type: none"> 1. Apply standard libraries and commonly used modules of python programming to solve real world engineering problem. 2. Implement the fundamental concepts of object-oriented programming (OOPS) in python script. 3. Write Python scripts to solve simple computational problems and perform basic data manipulation tasks. 4. Analyze the output of implemented solution of a given real world engineering problem with multiple inputs to ensure the


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		correctness and efficiency of algorithm.
84.	BCSP-706	<p>5. Make an effective laboratory report based on experiments performed as per given format.</p> <ol style="list-style-type: none"> 1. Identify the problem statement undertaken during the internship. 2. Apply the practical knowledge and skills acquired during the internship to solve engineering problem. 3. Demonstrate the ability to adapt and apply classroom learning to diverse internship tasks. 4. Collaborate with team members and colleagues, demonstrating the ability to work cohesively in a professional setting. 5. Develop a personalized plan for future career development based on insights gained during the internship.
85.	BCSP-707	<ol style="list-style-type: none"> 1. Identify and Define a specific engineering problem or challenge. 2. Apply project management principles to the planning and execution of a small project using modern tools and techniques. 3. Collaborate effectively within a team, demonstrating the ability to communicate ideas, delegate tasks, and resolve conflicts. 4. Apply theoretical concepts taught in earlier courses to tackle real-world engineering challenges as a team or individual. 5. Demonstrate competence in using tools, technologies, or programming languages relevant to the project

Department of Computer Science & Engineering: VIII Semester

		1. Apply the engineering knowledge concepts for operating system and their functions to solve engineering problem
86.	BCST-801	<ol style="list-style-type: none"> 2. Analyze and formulate the problems of various processes and scheduling algorithms. 3. Select appropriate approaches for building a range of distributed systems, including some that employ middleware 4. Demonstrate proficiency in using essential Unix/Linux commands for file manipulation, navigation, permissions, and process management. 5. Evaluate the performance of windows, linux and mac os based on various performance criteria for reasoning informed by the contextual knowledge of engineering practice.
87.	BCST-802	<ol style="list-style-type: none"> 1. Apply different encryption techniques to solve real world Engineering problem to achieve higher degree of network security. 2. Design a security solutions for the computing system on the basis of vulnerabilities. 3. Identify information system requirements for both of them


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		<p>such as client and server</p> <p>4. Evaluate security mechanisms on the basis of key ciphers and Hash functions.</p> <p>5. Demonstrate network security applications , IPSEC, Firewall, IDS, for web security .</p>
88.	BCST-803(A)	<p>1. Apply different AI -models and modern tools to solve complex and real time engineering problem.</p> <p>2. Implement the concepts of word sense, disambiguation, semantic parasing and subjectivity and sentiment analysis to solve real world engineering problem.</p> <p>3. Evaluate probabilistic parsing techniques for data classification in a Team or individual.</p> <p>4. Analyze and evaluate the use of information extraction techniques in NLP using modern tools.</p> <p>5. Design solution for Environment and Sustainability using appropriate Machine Learning Technical to address real-world problem in NLP in a team work .</p>
90.	BCST-803(B)	<p>1. Apply the concepts and principles to develop a hardware design for embedded systems to solve engineering problem.</p> <p>2. Choose suitable hardware and software solutions as per embedded systems requirements.</p> <p>3. Implement debug, and test cases related to embedded systems.</p> <p>4. Investigate as an individual or a team design of an embedded system and submit a report containing their relative merits and demerits based on performance measures.</p> <p>5. Evaluate the performance and reliability of embedded systems used in a real-world problem.</p>
91.	BCST-803(C)	<p>1. Apply fundamental concepts of probability to solve complex engineering problem.</p> <p>2. Apply probability distributions functions which can describe real-life phenomena.</p> <p>3. Analyze stochastic processes and phenomena which evolve concerning time in a probabilistic manner and submit report individualy or in team</p> <p>4. Evaluate expected values of variables and handling situations involving more than one random variable and functions of random variables.</p>
92.	BCST-803(D)	<p>1. Apply data encryption algorithms to solve real world security privacy problem.</p> <p>2. Identity management and access controls issues to achieve high degree securrity and privacy in cloud.</p> <p>3. Design configuration of security management to minimize data exposure .</p> <p>4. Analyse dynamic threat intelligence to keep track of the evolving threat landscape.</p>

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		5. Evaluate organizational recovery from securitydisaster .
93.	BCST-803(E)	<ol style="list-style-type: none"> 1. Apply blockchain techniques to solve complex and real world engineering problem. 2. Implement smart contracts in Ethereum using different development frameworks. 3. Investigate Blockchain with AI, IoT and Cyber Security challenge based on real world scenario. 4. Analyze the incentive structure in a blockchain based system and critically assess its functions, benefits and vulnerabilities. 5. Evaluate blockchain based structure potential and its its limitations in complex problem..
94.	BOCS-804(A)	<ol style="list-style-type: none"> 1. Apply knowledge of software testing and fault tolerant systems. 2. Develop an understanding of the issues of reliability and its evaluation in the design of computer systems, and to emphasize their importance. 3. Analyze the concepts and techniques which can make a system fault tolerant. 4. Apply the importance of fault tolerance in the design of safety critical systems. 5. Apply testing techniques and algorithms in hardware, software and communications.
95.	BOCS-804(B)	<ol style="list-style-type: none"> 1. Apply knowledge representation,tools, strategies, artificial intelligence learning paradigms and expert systems for solving problem 2. Identify artificial intelligent constraints satisfaction techniques and tools to find solutions of complex problems. 3. Analyze the given searching and optimization Techniques. 4. Formulate valid solutions for problems involving uncertain inputs or outcomes by using decision making techniques. 5. Create a machine learning model to solve real world prediction and classification problems using appropriate AI algorithm and modern tools.
96.	BOCS-804(C)	<ol style="list-style-type: none"> 1. Apply Cognitive Radio (CR) and its fundamental concepts to solve the real world engineering problem. 2. Evaluate the performance of a CR network in a practical deployment. 3. Design Cognitive Radio network for a specific scenario. 4. Identify and analyze case studies and real-world applications of CR networks. 5. Develop a research proposal for a new cognitive radio network architecture or algorithm.
97.	BOCS-804(D)	<ol style="list-style-type: none"> 1. Understand the basic principles and standards of Service-Oriented Architecture 2. Identify the Characteristics and benefits of SOA

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		<ul style="list-style-type: none"> 3. Build applications based on XML using Document object Model and Simple API for XML 4. Build SOA based applications for intra-enterprise and inter-enterprise applications 5. Analyze web services Using technology elements
98.	BCSP-801	<ul style="list-style-type: none"> 1. Apply the concept of virtualization for installing operating system on virtual machine. 2. Implement shell variables and shell keywords for automated system tasks. 3. Implement multiple approaches used for the design and development of the operating system. 4. Analyze the output of Linux commands for files and directories, creating and viewing files, File comparisons and Disk related commands. 5. Make an effective laboratory report based on experiments performed as per given format.
99.	BCSP-802	<ul style="list-style-type: none"> 1. Apply cryptographic algorithms and protocols to secure communication channels and protect against common network attacks like man-in-the-middle. 2. Implement encryption and decryption processes using programming languages or cryptographic tools. 3. Evaluate the security posture of a given network infrastructure and identify potential vulnerabilities. 4. Analyze the impact of different cryptographic key lengths and algorithms on the security of data. 5. Make an effective laboratory report based on experiments performed as per given format.
	M. Tech (CSE)	
100.	MCSP-102	<ul style="list-style-type: none"> 1. Select appropriate data structures as applied to specified problem definition. 2. Implement operations like sorting, searching, insertion, and deletion, traversing Mechanism etc. on various data structures. 3. Students will be able to implement linear and Non-Linear data structures. 4. Determine and analyze the complexity of given Algorithms.
101.	MCST-102	<ul style="list-style-type: none"> 1. Analyse the implementation of symbol table using hashing techniques. 2. Develop and analyze algorithms for red-black trees, B-trees and Splay trees. 3. Develop algorithms for text processing applications. 4. Identify suitable data structures and develop algorithms for computational geometry problems.
102.	MCSP-121	<ul style="list-style-type: none"> 1. Analysis how data is collected, managed and stored for data science. 2. Understand the key concepts in data science, including their real-world applications and the toolkit used by data scientists;

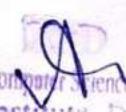

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		<ul style="list-style-type: none"> 3. Implement data collection and management scripts using Mongo DB. 4. To understand and analyses the concept to unify statistics, data analysis, machine learning and their related methods
103.	MCST-121	<ul style="list-style-type: none"> 1. Explain how data is collected, managed and stored for data science. 2. Understand the key concepts in data science, including their real-world applications and the toolkit used by data scientists. 3. Implement data collection and management scripts using MongoDB
104.	MCST 113	<ul style="list-style-type: none"> 1. Ability to Demonstrate knowledge of the fundamental principles of intelligent systems. 2. Ability to apply fuzzy logic in case of uncertainty. 3. Ability to apply different searching and optimization techniques in solving difficult real world problems. 4. Ability to apply inference and resolution in propositional and first-order predicate logic to prove theorems. 5. Ability to apply the advanced reasoning and learning techniques under uncertainty.
105.	MOET 191	<ul style="list-style-type: none"> 1. Understand research problem formulation. 2. Analyze research related information, Follow research ethics 3. Understand that today's world is controlled by Computer, Information Technology, but tomorrow's world will be ruled by ideas, concepts, and creativity. 4. Understanding that when IPR would take such an important place in the growth of individuals & nations, it is needless to emphasize the need for information about Intellectual Property Rights to be promoted among students in general & engineering in particular. 5. Understand that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and inturn brings about, economic growth and social benefits.
106.	MCST 101	<ul style="list-style-type: none"> 1. To understand the basic notions of discrete and continuous probability. 2. To understand the methods of statistical inference, and the role that sampling distributions Play in those methods. 3. To be able to perform correct and meaningful statistical analyses of simple to moderate complexity
107.	MCST 201	<ul style="list-style-type: none"> 1. Analyze the complexity <i>I</i> performance of different algorithms. 2. Determine the appropriate data structure for solving a particular set of problems. 3. Categorize the different problems in various classes according to their complexity. 4. Students should have an insight of recent activities in the field of the advanced data structure.

108.	MCSP 201	<ol style="list-style-type: none"> To implement the sorting algorithms based on Divide and Conquer techniques such as Merge Sort, Quick Sort. To implement the matroids algorithm such as finding the minimum cost of a spanning tree. To implement the matrix computation and flow network algorithms such as Strassen's matrix multiplication. To implement the shortest path algorithm such as Floyd-Warshall To implement the linear programming algorithm such as simplex algorithm.
109.	MCST 231	<ol style="list-style-type: none"> Able to extract the data for performing the analysis. Analysis and develop meaningful Data Visualizations for data cleaning. Identify and evaluate the clustering and association. Designing and virtualization of network and implementation them.
110.	MCSP 231	<ol style="list-style-type: none"> Ability to identify the characteristics of datasets and compare the trivial data and big Data for various applications. Ability to select and implement machine learning techniques and computing environment that are suitable for the applications under consideration. Ability to understand and apply scaling up machine learning techniques and associated Computing techniques and technologies. Determine and analyse the complexity of given Algorithms.
111.	MCST 241	<ol style="list-style-type: none"> Understand the structure of models and theories of human computer interaction and vision Design an interactive web interface on the basis of models studied
112.	MCSP~202	<ol style="list-style-type: none"> To apply the Concept of Computer Science & Engineering. To demonstrate their project work by presentation and enhance communication skills. To demonstrate ethics and technical skills. To evaluate the outcome of the project work and present through report.
113.	MCST 202	<ol style="list-style-type: none"> Identify and describe soft computing techniques and their roles in building intelligent machines Apply fuzzy logic and reasoning to handle uncertainty and solve various engineering problems. Apply genetic algorithms to combinatorial optimization problems. Evaluate and compare solutions by various soft computing approaches for a given problem.
114.	MOET 393	<ol style="list-style-type: none"> Students should able to apply the dynamic programming to solve problems of discreet and Continuous variables. Students should able to apply the concept of non-linear


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		<p>programming</p> <ul style="list-style-type: none"> 3. Students should able to carry out sensitivity analysis 4. Student should able to model the real world problem and simulate it.
115.	MCST 353	<ul style="list-style-type: none"> 1. Formulate optimization problems. 2. Understand and apply the concept of optimality criteria for various types of optimization problems. 3. Solve various constrained and unconstrained problems in Single variable as well as multivariable. 4. Apply the methods of optimization in real life situation.
116.	MCSP 301	<ul style="list-style-type: none"> 1. To demonstrate a profundity of knowledge of computer science and engineering. 2. To involve students in research topics using latest technology trends in the market. 3. To make them work for individuality, resulting in good quality thesis publication.
117.	MCSP 401	<ul style="list-style-type: none"> 1. Ability to adapt existing model of computations for active problem solving. 2. Ability to commence original and new research for quality work. 3. Ability to design and develop new software and hardware-based applications which meets the needs of the society.



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Course Outcome Bachelor of Computer Applications (BCA)

Department of Bachelor of Computer Applications (BCA):I Semester

S.No.	Course Code	Course Outcome
1.	BCA 101	<ul style="list-style-type: none"> 1. Analyze the fundamentals of C programming 2. To create the loops and decision-making statements to solve the problem. 3. To create different Operations on arrays. 4. To create functions to solve the given problem. 5. To design pointers, structures and unions
2.	BCA 102	<ul style="list-style-type: none"> 1. Bridge the fundamental concepts of computers with the present level of knowledge of the students. 2. To apply logic circuits and Boolean algebra forms in digital computer. 3. To apply binary, hexadecimal and octal number systems and their arithmetic. 4. To analyze operating systems, programming languages, peripheral devices, networking, multimedia and internet
3.	BCA 103	<ul style="list-style-type: none"> 1. To apply the basic concepts of sets. 2. Evaluate the recurrence relation and solving recurrence relation. 3. Evaluate the algebraic structure and group theory that serve as an essential tool for applications of computer and information sciences. 4. Developing the relevance of statements, inferences and predicates in computer science. 5. Write an argument using logical notation and determine if the argument is or is not valid.
4.	BCA 104	<ul style="list-style-type: none"> 1. Design and develop communication process and barriers to communication and effective Presentations. 2. Develop skills for Verbal and Non-verbal communication. 3. Demonstrate how the organizational behavior can integrate in understanding the motivation (why) behind behavior of people in the organization. 4. Develop how individual personality, Attitudes, perception and learning impacts the typical contemporary work experience. 5. Discuss and implement strategies for managing conflict and negotiation in the workplace

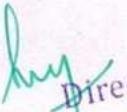
Department of Bachelor of Computer Applications (BCA):II Semester

5.	BCA 201	<ul style="list-style-type: none"> 1. To analyze the concepts of complexity and be able to apply operations on array and stack. 2. To apply the Conversion of Infix to Prefix and Evaluation of postfix expression using stack 3. To be able to apply the concept of Queues and Linked List
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		4. To be able to apply Searching method 5. To apply Sorting: Insertion sort, merge sort, Heaps and heap sort, Quick sort, linear sort, priority queue, order statistics, lower bounds for sorting
6.	BCA 202	1. To be able to analyze the concept of oops 2. To be able to apply class ,constructor ,object ,this pointer in C++ 3. To be able to apply C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc. 4. Be able to apply virtual functions in Polymorphism, Dynamic binding, Virtual destructors in C++ 5. Analyze C++ Stream I/O
7.	BCA 203	1. Analyze the concepts of analog to digital communication and OSI model. 2. Analyze Polling/Selection, Switching and routing in Network 3. To analyze the initial phases of the SDLC using analytical tools 4. To analyze The X.25 & Digital Networks. 5. To be able to analyze the personal computers as server linking the personal computer to mainframe computers.
8.	BCA 204	1. To apply different conversion technique of number systems. 2. To compare logic families of logic gates in the domain of economy, performance and efficiency. 3. To be able to analyze different types of digital electronic circuit using various mapping and logical tools 4. Apply the fundamental knowledge of analog and digital electronics to get different types of analog to digitalized signal. 5. To analyze the nomenclature and technology area of memory devices and apply the memory devices in different types of digital circuits.

Department of Bachelor of Computer Applications (BCA):III Semester

9.	BCA 301	1. To prepare the student to solve algebraic and transcendental equation by the numerical method. 2. To prepare the student to use interpolation techniques for a given tabulation data 3. To prepare the students to use numerical techniques to solve ordinary differential equation and integration
10.	BCA 302	1. To identify different issues involved in the design and implementation of a database system 2. To explain the physical and logical database designs, database modelling, relational, hierarchical, and network models. 3. To apply the database languages to query, update, and manage a database. 4. To develop an understanding of essential DBMS concepts such as: database security, integrity, concurrency 5. To design and build a simple database system and demonstrate

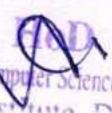

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		competence with the fundamental tasks involved with modelling, designing, and implementing a DBMS.
11.	BCA 303	<ol style="list-style-type: none"> To discover advanced knowledge of formal computation and its Distinguish different computing languages and classify their respective types. Recognize and comprehend formal reasoning about languages. Illustrate a competent understanding of the basic concepts of complexity theory.
12.	BCA 304	<ol style="list-style-type: none"> Need of management in organizations. Functions of Management and to be an effective manager. Understanding the organizational hierarchy For the purpose of delegation of authority and responsibility. Knowledge of how an organisation functions. Manage teams, gain insights into interpersonal dynamics. Managing people at the workplace Motivate the subordinates, peers and teams. Knowing the rules and procedures of Selection, Training and evaluation of employees
Department of Bachelor of Computer Applications (BCA):IV Semester		
13.	BCA 401	<ol style="list-style-type: none"> To analyze the role and responsibilities of OS in the computer system. To analyze how the OS deals with process management, memory management and secondary storage management. To analyze process synchronization and deadlocks. To apply the knowledge about OS, Linux operating system case study. To apply the algorithms for better utilization of external memory
14.	BCA 402	<ol style="list-style-type: none"> To analyze the knowledge of programming terminology and how to apply using Visual Basic. Develop a Graphical User Interface (GUI) based on problem description. To develop an Event Planning Chart based on problem description. To develop an Algorithm to verify processing. To develop programs that retrieve input from a file as opposed to input only provided by user
15.	BCA 403	<ol style="list-style-type: none"> To become aware of the Software Product. To increase the proficiency in Software Project Management To develop an Event Planning Chart based on problem description To gain practical experience in Requirements Engineering. To acquire the background of Software Architecture.
16.	BCA 404	<ol style="list-style-type: none"> To recognize and describe about the working of Computer Networks.

		<ol style="list-style-type: none"> 2. Illustrate reference models with layers, protocols and interfaces. 3. Summarize functionalities of different Layers 4. Distinguish functionalities of different Layers. 5. Model the LAN and WAN configuration using different media.
Department of Bachelor of Computer Applications (BCA):V Semester		
17.	BCA 501	<ol style="list-style-type: none"> 1. To be able to analyze graphical components and display techniques used in modern digital computer system. 2. To be able to analyze input techniques used in graphical user interface. 3. To be able to apply mathematical algorithm to construct basic graphical components. 4. To be able to analyze and apply the concept of curve and clipping. 5. To be able to analyze and evaluate 2D, 3D transformation and animation.
18.	BCA 502	<ol style="list-style-type: none"> 1. Analyze the role of different protocols and tools needed for the web development process. 2. Analyze the use of different HTML tags and web layout for website development. 3. Analyze the use of JavaScript, JSP in the dynamic web page creation. 4. Design interactive web page(s) using HTML, CSS and JavaScript, DHTML. 5. Analyze the Data Base related operations and its use in web development and Analyze the role of XML, DHTML in web development process.
19.	BCA 503	<ol style="list-style-type: none"> 1. To analyze the basic concepts and technologies used in the field of management information systems. 2. To be able to analyze the role of the ethical, social, and security issues of information systems 3. To be able to analyze the role of information systems on strategic management processes in organization. 4. To illustrate how various information systems like DBMS work together to accomplish the information objectives of an organization.
20.	BCA 504	<ol style="list-style-type: none"> 1. Validate form data using server-side Validation controls. 2. Create dynamic Web applications that interact with a database using server-side programming. 3. Integrate selected advanced topics in a DOT NET project create re-usable server components to retrieve data from SQL Server using stored procedures. 4. Create re-usable server components to retrieve data from SQL Server using stored procedures and DOT NET.

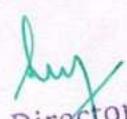
Department of Bachelor of Computer Applications (BCA):VI Semester		
21.	BCA-601	<ol style="list-style-type: none"> 1. To analyze Problem solving skills of real life problem 2. To analyze the basic concepts of programming in C#. 3. To be able to analyze the developing and debugging software in Visual Studio. 4. To be able to apply use of C# basics, Objects and Types, Inheritance. 5. To develop, implement and create Applications with C#.
22.	BCA 602	<ol style="list-style-type: none"> 1. To be able to analyze the concepts of risk, threats, vulnerabilities and attack. 2. To be able to determine the important ethical and legal issues considered in computersecurity. 3. To analyze the architecture of public and private key cryptography. 4. To analyze the methods of digital signature and encryption 5. To analyze security protocols of Network layer at different layers hierarchy.


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Course Outcome Master of Computer Applications (MCA)

Department of Master of Computer Applications (MCA):I Semester		
S.No.	Course Code	Course Outcome
1.	MCAT 101	<ol style="list-style-type: none"> 1. The student will learn to formulate simple algorithms for arithmetic and logical problems. 2. To analyze and understand the fundamentals of C programming 3. Demonstrate the concept of pointers and function 4. To analysis the concepts of structures and unions, bit wise operators, files, command line arguments. 5. To apply programming to solve matrix addition and multiplication problems and searching and sorting
2.	MCAT 102	<ol style="list-style-type: none"> 1. Apply different type of codes and number systems which are used in digital communication and computer systems. 2. Analyse, design and implement combinational logic circuits. 3. Analyse Sequential Devices General model of sequential circuits 4. Apply the different type of instruction set on hardwired and micro-programmed control unit of the CPU. 5. Distinguish the organization of various parts of a system memory hierarchy
3.	MCAT 103	<ol style="list-style-type: none"> 1. To prepare the student to solve algebraic and transcendental equation by the numerical method. 2. To prepare the student to use interpolation techniques for a given tabulation data 3. To prepare the students to use numerical techniques to solve ordinary differential equation and integration 4. To prepare the student to curve fit data using several types of curves. 5. To prepare the student to Time series and forecasting methods, Statistical Quality Controls methods.
4.	MCAT 104	<ol style="list-style-type: none"> 1. To apply the basic mathematical techniques to solve combinatorial problems. 2. To apply the basic concepts of recurrence relation. 3. To apply the basic concepts of graph theory to model real world problems. 4. Evaluate cut-sets and apply the concepts of matrix. 5. To apply the concepts of graph coloring 6. To apply the basic mathematical techniques to solve combinatorial problems.


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5.	MCAT105	<ol style="list-style-type: none"> 1. Identify various types of information systems concepts and terminologies 2. Discuss and apply the initial phases of the System, development Life Cycle (SDLC) using analytical tools and quantitative techniques used to identify problems 3. Analysis of various information gathering methods. 4. Analysis information systems projects to identify various aspects of feasibility of these projects. 5. Analyses and translate a specification into a design, and then realize that design practically, using an appropriate software engineering methodology.
6.	MCAT 106	<ol style="list-style-type: none"> 1. To Understand and analyse the different types of number systems which are used in computer systems. 2. To Understand and analyse the digital logic circuits with its truth table 3. To Understand the basic concepts of information and processing in information technology. 4. To Understand and analyse the computers and communications and also understand the concept programming language and its translator. 5. Understand and analysis the applications of information technology
7.	MCAP101	<ol style="list-style-type: none"> 1. The student will learn to formulate simple algorithms for arithmetic and logical problems. 2. Demonstrate the concept of pointer and perform I/O operations 3. Design and develop C program to evaluate simple expressions and logical operations 4. To analysis the concepts of structures and unions, bit wise operators, files, command line arguments.
8.	MCAP102	<ol style="list-style-type: none"> 1. Identify the working of working of various flip-flop using digital circuits &IC's 2. Illustrate the use of multiplexer . decoders/ Encoders, adders/subtrator using various IC's 3. Test the working of counter ,shiftregister &delay cycle clock using capacitors &digital circuits 4. Evaluate the output of various primary &secondary logic gates using different IC's
9.	MCAP103	<ol style="list-style-type: none"> 1. Students will be able to understand about different methods to solve algebraic and transcendental equations and interpolation

		<p>methods</p> <ol style="list-style-type: none"> 2. Apply numerical methods to obtain approximate solutions to mathematical problems 3. Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations 4. Analyze and evaluate the accuracy of common numerical methods.
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Department of Master of Computer Applications (MCA):II Semester

10.	MCAT 201	<ol style="list-style-type: none"> 1. Understand the difference between the top-down and bottom-up approach 2. Describe the object-oriented programming approach in connection with C++ 3. Apply the concepts of object-oriented programming 4. Illustrate the process of data file manipulations using C++ 5. Apply virtual and pure virtual function & complex programming situations
11.	MCAT 202	<ol style="list-style-type: none"> 1. To analyze algorithms and algorithm correctness. 2. To describe stack, queue and linked list operation. 3. To have knowledge of tree and graphs concepts. 4. To summarize searching and sorting techniques. 5. To analyze the file structure and physical storage media file organization.
12.	MCAT 203	<ol style="list-style-type: none"> 1. Analyze sets and its countability using Venn diagrams, examine relations and functions and evaluate daily life problems using Pigeonhole principle 2. Analyze and classify groups and rings and their types 3. Distinguish posets and lattices and justify complemented and bounded lattices with their properties. 4. Create a logical statement for a given sentence using logical operators and quantifiers 5. Evaluate daily life problems using permutations and combinations and evaluate recurrence relation using generating functions
13.	MCAT 204	<ol style="list-style-type: none"> 1. Analyze the structure of OS and basic architectural components involved in OS design 2. To differentiate among the cooperating and concurrent processes and implement CPU scheduling.

		<ul style="list-style-type: none"> 3. Examine the concept of deadlock and resource management. 4. Describe and analyze the memory management and its allocation policies. 5. Demonstrate the role and architecture of the LINUX OS.
14.	MCAT 205	<ul style="list-style-type: none"> 1. To analyze the basics of E-governance and different type of platform of e-governance 2. To understand the basic technologies and policies used in e-governance. 3. To analyze the flow models used in e-governance. 4. To understand the public information infrastructure and other government policies 5. To study the challenges and initiatives of e-governance in Indian scenario. 6. To analyze the basics of E-governance and different type of platform of e-governance
15.	MCAT 206	<ul style="list-style-type: none"> 1. Describe the architecture and features of UNIX Operating System and distinguish it from other Operating System 2. Demonstrate UNIX commands for file handling and process control 3. Write Regular expressions for pattern matching and apply them to various filters for a specific task 4. Analyze a given problem and apply requisite facets of SHELL programming in order to devise a SHELL script to solve the problem 5. Demonstrate the role and architecture of the LINUX OS.
16.	MCAP 201	<ul style="list-style-type: none"> 1. Students will be able to create simple programs using classes and objects in C++. 2. Implement Object Oriented Programming Concepts in C++. 3. Implement Object Oriented Programs using templates and exceptional handling concepts. 4. Develop applications using stream I/O and file I/O.
17.	MCAP 202	<ul style="list-style-type: none"> 1. Implement operations like searching, insertion, and MCAP206 deletion, traversing mechanism etc. on various data structures. 2. Students will be able to implement linear and Non-Linear data structures. 3. Implement appropriate sorting/searching technique for given problem. 4. Design advance data structure using Non-Linear data structure.
18.	MCAP206	<ul style="list-style-type: none"> 1. Identify and use UNIX/Linux utilities to create and manage simple file processing operations, organize directory structures

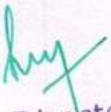
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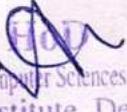
		<p>with appropriate security, and develop shell scripts to perform more complex tasks.</p> <ol style="list-style-type: none"> 2. Effectively use the UNIX/Linux system to accomplish typical personal, office, technical, and software development tasks Monitor system performance and network activities. Effectively use software development tools including libraries, preprocessors, compilers, linkers, and make files. Comprehend technical documentation, prepare simple readable user documentation and adhere to style guidelines. Collaborate in teams on system tasks.
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Department of Master of Computer Applications (MCA):III Semester

19.	MCAT 301	<ol style="list-style-type: none"> 1. Prepare the basics of Internet, Internet Services and Email Concepts. 2. Evaluate the object oriented programming concepts using java as well as the purpose and usage principles of inheritance, polymorphism, encapsulation and method overloading 3. able to apply object oriented programming features and concepts for solving given problem 4. Create Java application programs using sound OOP practices (e.g., interfaces and APIs) and proper program structuring (e.g., by using access control identifies, automatic documentation through comments, error exception handling) 5. Able to develop interactive programs using applets and swines
20.	MCAT 302	<ol style="list-style-type: none"> 1. Explain the basic concepts of time and space _complexity, divide-and-conquer Strategy, dynamic programming, greedy and approximate algorithms 2. Describe the methodologies of how to analyze an algorithm 3. Understands the data structures of graph coloring and back tracking 4. Design a better algorithm to solve the problems 5. To differentiate between tractable and intractable problems
21.	MCAT 303	<ol style="list-style-type: none"> 1. To identify the basic concepts and importance of DBMS and to conclude and design DBMS models by learning ER model concepts. 2. To be able to develop and analyse DBMS models by learning SQL and RDBMS basics 3. To be able to synthesise and review DBMS systems by the means of finding functional dependencies and by learning and implementing the concepts Normalization. 4. To be able to analyse and modify the existing Transaction

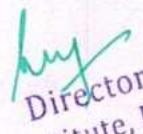
		<p>Management systems and to employ TMS models.</p> <p>5. To discover distributed database applications and to analyse and judge their applicability.</p>
22.	MCAT 304	<p>1. Differentiate the different methods of random number generation.</p> <p>5. Analyze how simulation is useful in research.</p> <p>6. Able to create the simulation model the system for different fields.</p> <p>7. Analyze the role of probability and different probability distribution in simulation.</p> <p>8. Analyze how queuing system is useful in simulation.</p>
23.	MCAT 305	<p>1. To analyze the role and requirements of a website.</p> <p>2. To design and create dynamic html pages using Javascript.</p> <p>3. To construct the MVC architecture using java beans and servlet.</p> <p>4. To be able to do sharing of data among JSP pages.</p> <p>5. To establish database connectivity using JDBC.</p>
24.	MCAT 306	<p>1. Analyze the role of different protocols and tools needed for the web development process.</p> <p>2. Analyze the use of different HTML tags and web layout for website development.</p> <p>3. Analyze the use of JavaScript, JSP in the dynamic web page creation.</p> <p>4. Design interactive web page(s) using HTML, CSS and JavaScript, DHTML.</p> <p>5. Analyze the Data Base related operations and its use in web development and Analyze therole of XML, DHTML in web development process.</p>
25.	MCAT 311	<p>1. To examine the various synchronization, scheduling and memory management issues.</p> <p>2. Demonstrate the Mutual exclusion, Deadlock detection and agreement protocols of Distributed Operating System.</p> <p>3. To describe the various resource management techniques for distributed systems.</p> <p>4. Identify the different features of real time and mobile operating system.</p>
26.	MCAT312	<p>1. Illustrate channels of E Commerce and M Commerce & use of different technology</p> <p>1. Elaborate security issues exists in electronic payment system</p> <p>2. Explain knowledge management processes, its technology and</p>

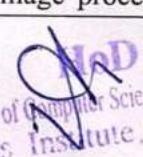

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		system 3. Comprehend Practical implications of KM tools and techniques
27.	MCAT313	1. Able to recognize evolving role of software project management 2. Understand and estimate cost for software project. 3. Identify & analyze aspect in s/w to manage time, process & resources effectively with quality concept. 4. Estimate software productivity using metrics and indicator identify important issues for planning a project.
28.	MCAP 301	1. Identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem 2. Demonstrates how to achieve reusability using inheritance, interfaces and packages and Describes faster application development can be achieved. 3. Demonstrate understanding and use of different exception handling mechanisms and Concept of multithreading for robust faster and efficient application development. 4. Identify and describe common abstract user interface components to design GUI in Java Using Applet & AWT along with response to events
29.	MCAP 303	1. Students will be able to develop and design Databases by applying SQL queries. 2. Students will be able to apply basic programming skill by using PL/SQL and will be able to create simple DB. 3. Students will be able to perform basic transaction operations.
Department of Master of Computer Applications (MCA):IV Semester		
30.	MCAT 401	1. Learn the Internet Programming, using Java Applets. 2. Create a full set of UI widgets and other components, including windows, menus, buttons. 3. Apply event handling on AWT and Swing components. 4. Learn to access database through Java programs, using Java Data Base Connectivity (JDBC) 5. Create dynamic web pages, using Servlets and JSP.
31.	MCAT 402	1. Recognize and Describe about the working of Computer Networks. 2. Illustrate reference models with layers, protocols and interfaces. 3. Summarize functionalities of different Layers.

		<ul style="list-style-type: none"> 4. Combine and distinguish functionalities of different Layers 5. Model the LAN and WAN configuration using different media.
32.	MCAT 403	<ul style="list-style-type: none"> 1. To broaden your knowledge of Software Process Models. 2. To become aware of the Software Product. 3. To increase your proficiency in Software Project Management. 4. To gain practical experience in Requirements Engineering. 5. To acquire the background of Software Architecture.
33.	MCAT 404	<ul style="list-style-type: none"> 1. Understand the basic concepts of Computer Graphics. 2. Demonstrate various algorithms for scan conversion and filling of basic objects and their comparative analysis. 3. Apply geometric transformations, viewing and clipping on graphical objects. 4. Explore solid model representation techniques and projections. 5. Understand visible surface detection techniques and illumination models.
34.	MCAT 405	<ul style="list-style-type: none"> 1. To analyze the role and requirements of a website. 2. To design and create dynamic html pages using Javascript. 3. To construct the MVC architecture using java beans and servlet. 4. To be able to do sharing of data among JSP pages. 5. To establish database connectivity using JDBC.
35.	MCAT 421	<ul style="list-style-type: none"> 1. Build indexing mechanisms for efficient retrieval of information from databases. 2. Measure query cost and optimize query execution. 3. Design distributed database for better resource management. 4. Demonstrate the understanding of the concepts of document oriented databases. 5. Apply appropriate security techniques database systems
36.	MCAT 422	<ul style="list-style-type: none"> 1. Demonstrate understanding of the basic concepts of two-dimensional signal acquisition, sampling, and quantization. 2. Demonstrate understanding of 2D Fourier transform concepts, including the 2D DFT and FF, and their use in frequency domain filtering. 3. Demonstrate understanding of spatial filtering techniques, including linear and nonlinear methods. 4. Demonstrate understanding of the fundamental image enhancement algorithms such as histogram modification, contrast manipulation, and edge detection. 5. Demonstrate programming skills in digital image processing


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		related problems
37.	MCAT 423	<ol style="list-style-type: none"> Understand the concepts of Artificial intelligence Understand the concepts of Intelligent Agents and issues in the design of search programs. Know various AI search algorithms (uninformed, informed, heuristic, constraint satisfaction, genetic algorithms). Understand the concepts of and Knowledge & reasoning of predicate logic and Representing knowledge using rules, Probabilistic reasoning. Have working knowledge in Prolog in order to write simple Prolog programs and explore more sophisticated Prolog code on their own.
38.	MCAT 431	<ol style="list-style-type: none"> Identify different media; representations of different multimedia data and data formats. Analyze various compression techniques. Compare various audio and video file formats. Apply different coding technique for solving real world problems. Choose optical storage media suitable for multimedia applications.
39.	MCAT 432	<ol style="list-style-type: none"> Implement solutions to basic bioinformatics problems. Discuss the use of bioinformatics in addressing arrange of biological questions. Describe how bioinformatics methods can be used to relate sequence, structure and function. Discuss the technologies for modern high-through put DNA sequencing and their applications. Use and describe some central bioinformatics data and information resources.
40.	MCAT 433	<ol style="list-style-type: none"> Understand need for ad hoc networks. Explain the constraints of physical layer that affect the design and performance of ad hoc network. Have gained an understanding of the current topics in WSNs. Understand security issues and QoS requirements To understand how proactive routing protocols function and their implications on data transmission delay and band width consumption.
41.	MCAT 434	<ol style="list-style-type: none"> Understand the key issues in big data management and its associated applications in intelligent business and scientific computing.



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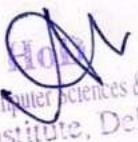
		<ol style="list-style-type: none"> 2. Acquire fundamental enabling techniques and scalable algorithms for Hadoop. 3. To acquire fundamental enabling techniques and scalable algorithms Map Reduce and NO SQL in big data analytics. 4. Interpret business models and scientific computing paradigms, and apply software tools for big data analytics. 5. Achieve adequate perspectives of big data analytics in various applications like recommender systems, social media applications etc.
42.	MCAP 405	<ol style="list-style-type: none"> 1. Understand computer network basics, network architecture, TCP/IP and OSI reference models 2. Identify and understand various techniques and modes of transmission 3. Understand data link protocols, multi-channel access protocols and IEEE 802 standards for LAN 4. Describe routing and congestion in network layer with routing algorithms and classify IPV4 addressing scheme
43.	MCAP403	<ol style="list-style-type: none"> 1. Problem Analysis and Project Planning Thorough study of the problem- identify project scope, infrastructure. 2. Software Requirement Analysis- Describe the individual Phases/modules of the project deliverables. 3. Data Modeling Use work products - data dictionary, use case diagrams and activity diagrams, build and test lass diagrams, sequence diagrams and add interface to class diagrams. 4. Software Developments and DebuainQ.
Department of Master of Computer Applications (MCA):V Semester		
44.	MCAT-501	<ol style="list-style-type: none"> 1. To know about basic goals of the .NET Framework. 2. A working knowledge of the C# programming language. 3. An understanding of how to use forms to develop GUI programs under .NET 4. Knowledge of some of the tools available in the .NET Framework class library
45.	MCAT-502	<ol style="list-style-type: none"> 1. To be able to analyze the concept, basic structure of data warehouse and multidimensional databases of data warehouse 2. To analyze the mapping of information of data warehouse to a multiprocessor architecture and its tools. 3. To be able to analyze the working of OLAP and AI. 4. To analyze data mining methods like clustering, classification and association mining. 5. To be able to analyze data visualization and multimedia data

		mining
46.	MCAT 503	<ul style="list-style-type: none"> 1. To analyze the working e-governance services 2. To analyze the role of different models in e-governance policies. 3. To analyze the core concept of public key encryption mechanism and their application in network security. 4. To analyze the applicability of Hash function, Digital Signature and other security algorithms in network security. 5. To analyze some advanced network security algorithms and their working principle
47.	MCAT 504	<ul style="list-style-type: none"> 1. Analyze different approaches to software quality assurance 2. Apply software quality assurance knowledge in practice 3. Evaluate software metrics results 4. Analyze different approaches to software testing and quality assurance, and select optimal solutions for different situations and projects; 5. Evaluate the work of peers constructively by following proven methods of peer review, and by using the principles of ethics
48.	MCAT 543	<ul style="list-style-type: none"> 1. To analyze the client and server architecture and development tools. 2. Analyze client server component like OLE, CORBA, and ODE. 3. Analyze various networking standards for data transmission in a network. 4. To analyze different data storage techniques and functions in client server system. 5. To analyze network and system administrative tools in a LAN.
49.	MCAT 553	<ul style="list-style-type: none"> 1. Ability to understand various service delivery models of a cloud computing architecture. 2. Ability to understand the ways in which the cloud can be programmed and deployed. 3. Understanding cloud service providers.
50.	MCAT 554	<ul style="list-style-type: none"> 1. Interpret the impact and challenges posed by IoT networks leading to new architectural models. 2. Compare and contrast the deployment of smart objects and the technologies to connect them to network. 3. Appraise the role of IoT protocols for efficient network communication. 4. Elaborate the need for Data Analytics and Security in IoT. 5. Illustrate different sensor technologies for sensing real world

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		entities and identify the applications of IoT in Industry.
51.	MCAP 504	<ol style="list-style-type: none"> 1. Distinguish characteristics of structural testing methods. 2. Design and conduct a software test process for a software testing project. 3. Understand and identify various software testing problems and able to solve these problems by designing and selecting software test models, criteria, strategies, and methods.


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**Course Outcome
Bachelor of Business
Administration (BBA)**

Department of Bachelor of Business Administration (BBA):I Semester		
S.No.	Course Code	Course Outcome
1.	BBA 101	<ul style="list-style-type: none"> 1. To understand the basic concepts & principles of management. 2. To understand the skills required by a manager. 3. To compare and contrast different roles and styles of manager across the organization. 4. To examine the effective application of this subject knowledge to diagnose and solve the organization problem and take optimal managerial decision. 5. To understand the practical implementation of theories and principles of management.
2.	BBA 102	<ul style="list-style-type: none"> 1. To apply Information Technology in business 2. To understand E-commerce and M-Commerce concept in reference to Indian business context 3. To understand the computer basics related to hardware and software 4. To acquire practical knowledge about MS Word, MS Excel, MS Power point and application and use of Statistical test 5. To learn the use of computers in management information (MIS) at various levels of management
3.	BBA 103	<ul style="list-style-type: none"> 1. To understand the communication process, its meaning and barriers. 2. To enhance the skills of verbal and non-verbal communication 3. To effectively use grammar in business communication 4. To learn to write effective official letters, circulars, notices etc. 5. To learn about the effective use of communication in business world
4.	BBA 104	<ul style="list-style-type: none"> 1. To learn the process of how an organization manages its accounts by using different steps in order to communicate to various parties and maintain records 2. To be able to learn to analyze organizational accounts by using different methods, easy recognition of errors to know the true and fair position of the business. 3. To learn about the continuous change in the value of assets, understanding of different methods to show the value of assets at the end of every year, and ways of managing money for both short and long term planning. 4. To understand the concept of partnership, the related profit and other business decision making processes. 5. To learn the various methods and techniques that an


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		organization uses to analyze its business by comparing it with their past records and communicate these results to interested parties.
5.	BBA 105	<ol style="list-style-type: none"> To learn the basic concepts of managerial economics and understand how they imply in the daily life and business. To understand different factors which affect demand and supply and analyze the effect of these factors on market dynamics and also to apply concepts of price, cross and income elasticity in business To become aware of and gain knowledge about various production and cost concepts in business for maximization of output and minimization of cost. To understand the functioning of different market structures and be able to apply various pricing policies in business under different conditions. To understand the meaning of profit management along with its various concepts and how they apply to business, to learn the reasons for fluctuations in the business cycle and its effects on the economy.

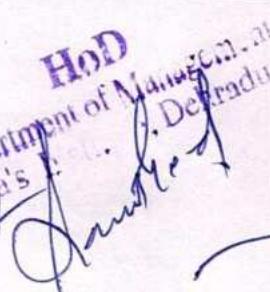
Department of Bachelor of Business Administration (BBA):II Semester

6.	BBA 201	<ol style="list-style-type: none"> Apply the marketing concepts in Indian context for economic development. Evaluate consumer behaviour and decision making process. Design pricing, advertising and distribution strategies. Evaluate marketing and physical distribution processes. Analyze marketing in global and rural areas for future challenges.
7.	BBA 202	<ol style="list-style-type: none"> Analyse the roles and responsibilities of HR manager and the implication of human resource management concepts in practical situations in an organization at all the levels. Design the recruitment, selection and placement procedures suitable to a particular organization. Create effective procedures for resolving the grievances and disputes in an organisation. Integrate performance appraisal system and compensation management with employee retention. Demonstrate the knowledge of industrial relations for solving workmen related issues in an organization.


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8.	BBA 203	<ul style="list-style-type: none"> 1. To analyze various Business Environment & Social responsibility of Business, Business ethics, Business and Culture, Technological Development and Social Changes. 2. To apply the various Economic System like Capitalism, Socialism, Mixed Economy & Role of Public sector in Indian Economy and its Problems. 3. To understand & Role of Government in Economic Planning in India, 4. To create & apply the Provisions under Companies Act, 1956 relating to setting up of a Company, Provisions under the MRTP Act relating to Restrictive trade Practices and Unfair trade Practices. 5. To apply the various International Business Environment
9.	BBA 204	<ul style="list-style-type: none"> 1. To analyze and apply the basics of production management and the relevant and responsible factors for business efficiency to make the best use of the resources in hand. 2. To analyze and evaluate the various types of production processes, the essentialities of a product such as its selection, various procedures and its stocking in business so as to take correct decisions and create new ideas for the future growth of the company. 3. To create the production efficiency picture and analyze, demonstrate inventory control techniques and take decisions with the help of various tools and concepts to maximize the production at limited or minimum cost and resources available with the company 4. To analyse, evaluate and understand the various models that deal with productivity, its control, safety and security management in production process. To judge and improve the management approach as a top level manager for the optimum growth of the organization. 5. To analyze and evaluate supply and logistics, distribution networks and its management.
10.	BBA 205	<ul style="list-style-type: none"> 1. Demonstrate the understanding of need, scope and importance of finance in running a business efficiently. 2. Illustrate the structure and importance of regulatory bodies facilitating the finance function in organizations. 3. Evaluate the sources of finance for an organization and the effective cost of raising funds from these sources. 4. Apply the knowledge of securities to devise an optimum


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		<p>capital structure for an organization aiming at the minimisation of cost and maximization of returns.</p> <ol style="list-style-type: none"> 5. Demonstrate the knowledge of financial markets for raising short term finance for an organization. 6. Evaluate the factors for dividend decisions with the focus on maximizing the returns to an organization.
11.	BBA 206	<ol style="list-style-type: none"> 1. Analyze the concepts of environmental sciences. 2. Evaluate the complexity of ecosystem and sustaining methods. 3. Relate the interdependence of humans and environment. 4. Categorise the environmental problems, their causes and consequences. 5. Illustrate the impact of social and political issues on environment. 6. Examine the government initiative on environmental protection.

Department of Bachelor of Business Administration (BBA):III Semester

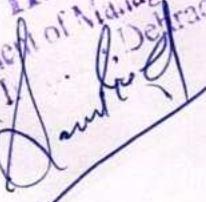
		<ol style="list-style-type: none"> 1. To identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories. 2. To understand the various international business decisions adopted by various countries to enter globally and role of different global organisation towards economic development. 3. To analyse recent trends in India's foreign trade and various parameters needed to go internationally. 4. To analyze current conditions in developing emerging markets, and evaluate present and future opportunities and risks for international business activities. 5. To understand the framework to support successful decision-making in all
12.	BBA301	<ol style="list-style-type: none"> 1. To develop cognizance of the importance of human behaviour in the organization. 2. To study the concept of organizational behaviour 3. To understand the behaviour of people in the organization by Perception, Learning and Behaviour Modification, Personality, Attitudes, Motivation. 4. To learn to improve and develop the understanding of group formation and management. 5. To develop the understanding of structural dimensions of
13.	BBA302	<ol style="list-style-type: none"> 1. To develop cognizance of the importance of human behaviour in the organization. 2. To study the concept of organizational behaviour 3. To understand the behaviour of people in the organization by Perception, Learning and Behaviour Modification, Personality, Attitudes, Motivation. 4. To learn to improve and develop the understanding of group formation and management. 5. To develop the understanding of structural dimensions of


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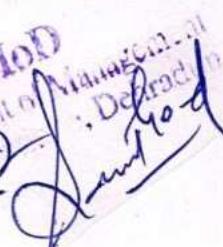
		<p>organizational behaviour.</p> <ol style="list-style-type: none"> 6. To study the concept of organizational effectiveness and organizational change.
14.	BBA 303	<ol style="list-style-type: none"> 1. To classify about the elements and principles of design. 2. To understand design layout production, typography. 3. To apply the knowledge of DTP Software. 4. To classify about various method of printing 5. To illustrate various techniques of color printing.
15.	BBA303	<ol style="list-style-type: none"> 1. To understand the legal aspects of business. 2. To become familiar with the laws governing commercial deals, its meaning, history, scope and the source. 3. To develop an over-all interest in laws prevalent in the country relevant to the job. 4. To learn the legal principles involved in the contract act and its essentials. 5. To learn the various clause related to sales of goods act and partnership act. 6. To understand the use and working of the acts related to the negotiable instruments, endorsements, banks and consumer protection.
16.	BBA304	<ol style="list-style-type: none"> 1. To analyze the implications of cost in managerial decisions. 2. To understand the differences between management, financial and cost accounting. 3. To understand the three primary purposes of management accounting namely, inventory valuation, decision support and cost control. 4. To understand break even concept with charts and graphs. 5. To apply standards and various types of budget for planning and controlling purposes. 6. To understand standard costing and analysis of deviation.
17.	BBA 305	<ol style="list-style-type: none"> 1. To understand the concept and uses of statistical tools in business. 2. To understand calculation of skewness, dispersion and frequency distribution. 3. To learn the calculation of mean, median and mode. 4. To understand the probability and the application of probability in business. 5. To understand the concepts related to data collection and data representation. 6. To understand the correlation, regression and time series


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Department of Bachelor of Business Administration (BBA):IV Semester		
18.	BBA 401	<ol style="list-style-type: none"> Demonstrate the understanding of the Indian Companies Act in terms of evolution, types, characteristics, promotion, duties and liabilities. Demonstrate the understanding of the Formation of Company, Documentation required, Memorandum of Association, Articles of Association, Public company, Private Company, the conversion process from private to public status, and legal doctrines. Analyse issues related to share capital and debentures, prospectus, transfer and transmission of the securities. Analyse the process of corporate management and administration. Illustrate the application of essential conditions and process of Winding up of Company.
19.	BBA 402	<ol style="list-style-type: none"> Contrast the research methods. Evaluate the framework of research process according to the research problem. Create the research design for the research problem in question. Compare the sources of information for literature review and datacollection. Choose methods of data analysis-and hypothesis testing procedures in global business prospects. Formulate testable hypotheses and choose the appropriate tools for testing them. Write the Research reports.
20.	BBA 403	<ol style="list-style-type: none"> Demonstrate the knowledge of logistics management and its interface with production and marketing domains. Plan Warehouse and Logistics operations for optimum utilization of resources. Analyze and improve supply chain processes. Plan transportation system for optimization of resources. Describe methods of inventory planning, packaging and material handling. Analyze processes and issues involved in International Logistics Management.
21.	BBA 404	<ol style="list-style-type: none"> Demonstrate the knowledge of service marketing concepts.


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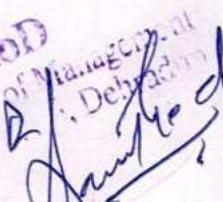
		<ol style="list-style-type: none"> 2. Discuss key linkages between marketing and other business functions in the context of designing and operating an effective service system. 3. Demonstrate ability to analyze service shortcomings and correct them to create service excellence. 4. Identify and discuss characteristics and challenges of managing service firms in financial field. 5. Apply the service marketing concepts in tourism, travel and transport field.
22.	BBA 405	<ol style="list-style-type: none"> 1. Analyse the personality, perception, learning motivation and attitude of consumer for meeting organizational sales targets. 2. Evaluate consumer behaviour influences, their relationships and impact in consumer behaviour. 3. Compare consumer behaviour models and impact of theories and concepts to marketing decisions. 4. Implement appropriate combinations of buying behaviour theories and concept. 5. Demonstrate application of knowledge of consumer behaviour in marketing.
Department of Bachelor of Business Administration (BBA):V Semester		
23.	BBA 501	<ol style="list-style-type: none"> 1. To understand the application of various strategies in business. 2. To understand the concept of strategic related activities. 3. To understand the various techniques & challenges faced by a company in competitive environment. 4. To develop skill & deal with ever changing business situation. 5. To understand the various concepts, models of environment scanning & strategic imolementation.
24.	BBA 502	<ol style="list-style-type: none"> 1. To understand the concept of entrepreneurship, small business and its difference from large scale business 2. To understand the process of entrepreneurship and the institutional facilities available to an entrepreneur in India 3. To learn the process of starting a new business venture and create the relevant business plan. 4. To learn about the valuation process of business and to know the financing sources for it. 5. To gain the knowledge on legal aspects and government policy relating to entrepreneurship.
25.	BBA 503	<ol style="list-style-type: none"> 1. To study an empirical research topic 2. To gain exposure while doing survey or research 3. To enrich the knowledge base with literature review on the


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		<p>current topic</p> <p>4. To be able to apply research test wherever applicable to solve problems.</p>
26.	BBA 504-M-2	<p>1. To learn the principles and basic fundamentals of marketing communication.</p> <p>2. To develop an understanding of advertising and its influences on other marketing functions and other promotional activities.</p> <p>3. To develop creative solutions to address advertising and marketing communications challenges.</p> <p>4. To understand the process of developing and implementing media strategies.</p> <p>5. To learn the social, economic and ethical aspect of advertising.</p>
27.	BBA 504-M-3	<p>1. To learn the concepts of sales and distribution management.</p> <p>2. To understand the various facets of the job of a sales manager.</p> <p>3. To learn how to focus on decision making aspects and their implementation in the field of sales and distribution management</p> <p>4. To gain knowledge about the concepts, techniques and the practical aspects of the key decision making variables in distribution channel management.</p> <p>5. To learn strategies to manage and develop sales force and marketing channels to gain competitive advantage.</p>
28.	BBA 505-H1	<p>1. To learn to understand, maintain & establish sound industrial relationship in organization.</p> <p>2. To understand the significance and functioning of trade union.</p> <p>3. To gain knowledge about the trade union and dispute act.</p> <p>4. To understand the procedures concerning to the worker's participation in management.</p> <p>5. To identify and examine the issues which might take the form of dispute in the workplace.</p>
29.	BBA 505-H2	<p>1. To know the concept of training and development and relate its importance to the employee.</p> <p>2. To know the behaviour of employees at the workplace and accordingly motivate them to learn and update</p> <p>3. To learn to analyse problems and provide solutions, enable effective presentation of input and activities, provide constructive feedback to trainees</p> <p>4. To analyse, organize development activities in the organization and be active in Human Resource Planning</p> <p>5. To learn to evaluate training materials for trainees of different</p>


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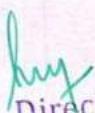

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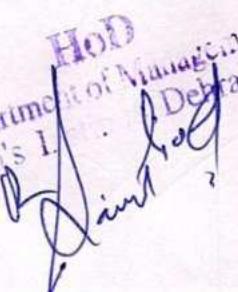
		experiential levels
30.	BBA 506-F2	<ol style="list-style-type: none"> To understand the importance of working capital and the need of its management in an organization. To learn the various sources of working capital. To learn the ratios used to evaluate capital and cash performance. To learn to manage the components of working capital efficiently to minimize the cost and maximize the profit of the business firm. To understand the importance of managing cash and managing receivables.
31.	BBA 506-F3	<ol style="list-style-type: none"> To understand the role and necessity of the financial system To learn the structure of financial markets. To understand the roles of financial intermediaries within financial markets. To learn the various types of risks in the financial world and its management. To understand the internationalization of financial markets and their investment opportunities.
32.	PDP	<ol style="list-style-type: none"> To learn to communicate effectively, precisely, confidently and practice structural speech To be able to understand the objective of the interview process, answer different types of questions, & code of conduct. To be able to exhibit group handling, team spirit, leadership, take initiative, self confidence in speaking, appropriate presentation skills and learn to summarise the details crisply To become aware of the nature, importance, and requirements of JAM sessions, exhibit self-confidence in public speaking, overcome hesitation & stage fear, and show presence of mind while speaking To learn time management skills, handling difficult situations, people management, develop high emotional quotient, and practice positive body language in professional & personal life. To be able to write effective resume, application with proper content. To understand the importance and imbibe professional grooming and formal dressing.

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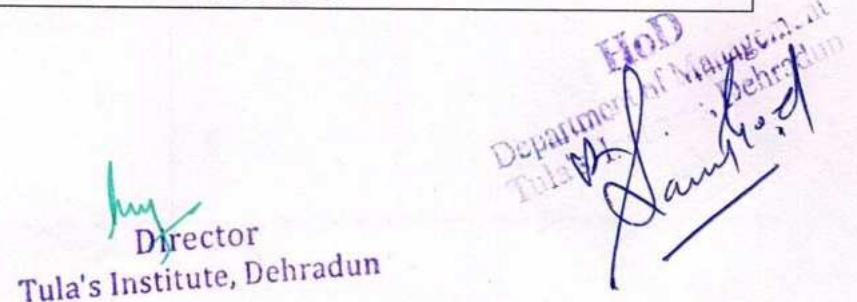
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Department of Bachelor of Business Administration (BBA):VI Semester		
33.	BBA 601	<ol style="list-style-type: none"> Analyse the role of information technology and information systems in business Assess the inter-relationships of information support systems and business decisions for competitive advantage. Identify the role of Management information system with respect to business needs. Apply the database management system for attaining business goals. Demonstrate the knowledge of of information systems for efficient and effective working in an organization.
34.	BBA 602	<ol style="list-style-type: none"> Illustrate the characteristics and development process of a project. Develop the design and feasibility of a project organization. Evaluate the techniques for used for Project Manaoement. Evaluate the risk management techniques. Explore the project implementation plan and monitoring process. Justify the criteria for project aoraisal and project review
35.	BBA 604-M-1	<ol style="list-style-type: none"> Apply the key terms, definitions, and concepts used in marketing with an international perspective. Evaluate different cultural, political, and legal environments influencing international trade. Compare the value of developing global awareness vs. a local perspective in marketing Develop creative international market entry strategies, planning, coordination and control. Analyze the different international product policies and product life cycle. Apply internationally oriented marketing strategies for product concept, pricing, place, and promotion. Explain the differences in negotiating with marketing partners from different countries and the implications for the marketing strategies (4Ps).
36.	BBA 604-M-3	<ol style="list-style-type: none"> Explore the facets of rural marketing and develop an insight regarding special practices in this field. Evaluate the buying pattern of rural customer in durable and non- durable segment of goods and services. Examine the processes of product planning, media planning, distribution channels, marketing centres and levels of


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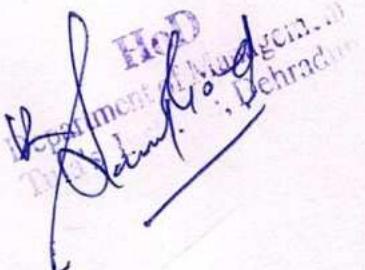

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		<ul style="list-style-type: none"> inspection in rural set-up.
37.	BBA 605-H-1	<ul style="list-style-type: none"> 4. Develop rural marketing strategy with reference to a particular product or service. 5. Identify the methodology for conducting the research in rural market <ul style="list-style-type: none"> 1. Develop the HRP process with the help of various forecasting techniques. 2. Evaluate the recruitment and selection policies based on the organizational needs 3. Prepare policies related to the employee development. 4. Construct the training models for the effective training of employee in an organization. 5. Develop the techniques of performance appraisal according to the organizational needs.
38.	BBA 605-H-3	<ul style="list-style-type: none"> 1. Demonstrate the understanding of the core principles of social security, structure and administration of International Labour Organization. 2. Acquire and implement the legal framework regarding labour relations. 3. Examine the labour agreements through Minimum Wages Act, Payment of Bonus Act and Payment of Wages Act. Illustrate professional and ethical responsibility towards employees through Workmen's Compensation Act, Employee's State Insurance Act and Payment of Gratuity Act.
39.	BBA 606-F-1	<ul style="list-style-type: none"> 1. Demonstrate an integrative understanding of international financial environment, international financial flows, BOP, and international monetary and financial system. 2. Analyse, evaluate and synthesise both quantitative and qualitative financial information to influence problem solving and decision making. 3. Analyze the decisions for short term and long run investment decisions in international context. 4. Demonstrate the knowledge of working capital management, trade financing, cash management, receivables, and inventory management in international context. 5. Analyse, apply and evaluate information within the global financial environment of foreign exchange to solve problems and make informed decisions.



40.	BBA . 606-F-2	<ol style="list-style-type: none"> 1. To categorize various types of financial services provided by financial institutions and illustrate the various guidelines of SEBI relating to merchant bankers. 2. To breakdown the various aspects of leasing and hire purchase and its legal evaluation. 3. To examine the role of bill discounting and analysing its legal and financial aspects in respect to factoring, forfeiting and venture capital funds 4. To criticize the decisions related to capital structure and finance and from where the assistance can be obtained. 5. To relate the role of underwriters in public issue with getting credit rating from various credit rating agencies and adhering to the guidelines laid down by SEBI.
41.	PDP	<ol style="list-style-type: none"> 1. To learn to communicate effectively, precisely, confidently and practice structural speech 2. To be able to understand the objective of the interview process, answer different types of questions, & code of conduct. 3. To be able to exhibit group handling, team spirit, leadership, take initiative, self confidence in speaking, appropriate presentation skills and learn to summarise the details crisply 4. To become aware of the nature, importance, and requirements of JAM sessions, exhibit self-confidence in public speaking, overcome hesitation & stage fear, and show presence of mind while speaking 5. To learn time management skills, handling difficult situations, people management, develop high emotional quotient, and practice positive body language in professional & personal life. 6. To be able to write effective resume, application with proper content. 7. To understand the importance and imbibe professional grooming and formal dressing.


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Course Outcome Master of Business Administration (MBA)

Course Outcome Master of Business Administration (MBA): I Semester		
S.No.	Course Code	Course Outcome
1.	MBAT101	<ol style="list-style-type: none"> To make the students understand the concepts of business related activities To be able to demonstrate the role, skills and functions of management To make the students learn the practical implications of the knowledge of principles and practices of management for identifying and solving issues in effective way. To develop the understanding of making optimal managerial decision making in an organization. To understand the complexities associated with the management of human resource in the organization.
2.	MBAT102	<ol style="list-style-type: none"> To learn the various concepts & steps that organization follows in financial accounting so that the organization can deliver the fair position of business to the interested parties and the measures that can be taken for economic development. To learn the various accounting equations and their categories, the classifications of revenues and expenses. To learn the various steps followed in chronological order in which the accounting entries are recorded in books of accounts & the steps to rectify the errors made while recording using the technology as a tool. To understand the performance of the organization and analysing the position in the market using various analysis models. To understand the how the organisation adapts itself to the International Financial Standards and the latest trends in corporate reporting.
3.	MBAT103	<ol style="list-style-type: none"> To make the students learn to collect appropriate data needed, manipulate and draw inferences. To understand the concept of statistical averages, their uses and application of different techniques. To learn to apply the knowledge of statistical measures for analysis and interpretation of data. To make the students understand linear programming method to maximize the profit and to minimize the cost and to gain knowledge on correlation, rank correlation and its application. To be able to use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision. To identify the elements of operations management and various transformation processes to enhance productivity and competitiveness. To identify different types of process-product matrix and to

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		solve numerical on the different transportation Models.
4.	MBAT104	<ul style="list-style-type: none"> 1. To understand the basic concepts of managerial economics, its importance, and use of different theories for the optimization of output and maximization of profit 2. To understand different factors of demand and supply, analyze the effect of these factors on market dynamics, to apply concepts of price, cross and income elasticity in business to take correct decisions for future growth of the company 3. To have knowledge of application of various production and cost concepts in business for maximization of output and minimization of cost. 4. To understand different market structures and gain the ability to apply various pricing policies in business. 5. To understand the various theories of factor pricing and learn how to determine the reward.
5.	MBAT105	<ul style="list-style-type: none"> 1. To understand various features constituting the business environment and the approaches helpful to manage both internal and the external business environment. 2. To make the students understand the various types of policies in economic environment, how these policies change the structure of economy and the transition thereof from the past to the present scenario. 3. To make the students understand the importance of corporate social responsibility. 4. To make the students learn how the technological, demographic social and cultural factors can affect the business and to study their recent trends. 5. To make the students learn the basics of foreign investments and the terms that is related with trade and its regulation.
6.	MBAT106	<ul style="list-style-type: none"> 1. To provide the students with an understanding of fundamental legal issues pertaining to the business world to enhance their ability to manage businesses effectively. 2. To be able to identify the fundamental legal principles behind contractual agreements and negotiable Instruments. 3. To make the students understand the law relating to the sale of goods. 4. To make the students understand the law relating to consumer protection, and market competition. 5. To make the students understand the various legal matters related to the establishment, running and winding up of a company.
7.	MBAT107	<ul style="list-style-type: none"> 1. To make the students learn the concept of communication, its relevance in business, the communication process 2. To make the students learn the tools of communication, barriers to effective communication and how to overcome the barriers to achieve effective communication.

		<ul style="list-style-type: none"> 3. To understand and imbibe the essentials of verbal communication, the significance of speech, the significance of body language, the concept of one to one communication 4. To learn the interview skills, importance of written communication, know the various formats of communication, 5. To understand the dos and don'ts of written communication, importance of internal communication, writing reports effectively, and the various steps to write a report. 6. To learn to make an effective resume. 7. To learn the importance of digital communication, reading and understanding the different types of letters, drafting letters for employment, responding /acknowledge the different kinds of official letters 8. To understand and incorporate the sense of official etiquette and dressing for formal occasions
8.	MBAT108	<ul style="list-style-type: none"> 1. To be able to apply formatting & editing features to enhance worksheet. 2. To understand the concepts & importance of different types of computers in business. 3. To understand the role of information systems in achieving business competitive advantage through informed decision making. 4. To understand the business application of MIS. 5. To interpret how to use information technology to solve business problems.
Course Outcome Master of Business Administration (MBA): II Semester		
9.	MBA 201	<ul style="list-style-type: none"> 1. To understand the importance of maintaining behaviour in organization. 2. To analyse different theories of perception, attitude, values, learning and motivation so that their application is feasible. 3. To apply the theories of personality and leadership. 4. To understand and use the group for the achievement of organizational goals. 5. To develop organizational culture and apply organizational change for the benefit of organization
10.	MBAT202	<ul style="list-style-type: none"> 1. To demonstrate the differences between management accounting, financial accounting and cost accounting 2. To develop and apply standards to various types of budget for planning and controlling purposes 3. To understand standard costing and analysis of deviations 4. To apply the concept of marginal costing, and break even concept in various decision making process 5. To analyze cost-volume profit techniques for optimizing managerial decisions, responsibility accounting and importance of responsibility centres.
11.	MBAT203	<ul style="list-style-type: none"> 1. To demonstrate the real application of all the theories related

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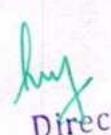
		<p>to their course.</p> <ol style="list-style-type: none"> 2. To make the assess the real market situations. 3. To develop better understanding related to the business environment. 4. To develop their analytical and conceptual thinking.
12.	MBAT204	<ol style="list-style-type: none"> 1. To evaluate marketing environment concepts and its evolution 2. Compare and contrast among market segmentation and consumer behaviour concepts 3. To critically analyze the role and concepts of product decisions - Product life cycle, new product development, product pricing 4. To develop the ability of pricing decisions, channel of distribution and physical distribution . 5. Helps the students to analyze and develop the understanding of Legal, Ethical and Social Aspects of Marketing
13.	MBAT205	<ol style="list-style-type: none"> 1. To analyse financial management on the basis of nature, objectives and scope and the financial decisions that can affect due to time value of money and the risks involved with them. 2. To illustrate the various models of cost of capital and identifying the uses of various approaches in respect to capital structure. 3. To review the decisions to be taken in regards to investment and analysis of capital budgeting decision based on real life instances. 4. To categorise the decisions related to dividend, its policies and working capital and how can they impact on the total value of the firm. 5. To review the process of mergers and acquisitions undertaken by the firm and also how the valuation and financing decisions can affect them.
14.	MBAT206	<ol style="list-style-type: none"> 1. Apply different functions, roles and responsibilities of a HR manager in an organization. 2. Apply Human Resource Planning Process and develop techniques for the acquisition of Human Resource in an organization. 3. Demonstrate and implementation of training and development program in an organization. 4. Apply various performance appraisal techniques to evaluate employee's performance 5. Develop techniques for motivating human resources in an organization.
15.	MBAT207	<ol style="list-style-type: none"> 1. To analyze and apply the basics of production management and the relevant and responsible factors for business efficiency to make the best use of the resources in hand. 2. To analyze and evaluate the various types of production processes, the essentialities of a product such as its selection, various procedures and its stocking in business so as to take

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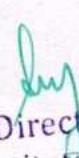
		<p>correct decisions and create new ideas for the future growth of the company.</p> <ol style="list-style-type: none"> 3. To create the production efficiency picture and analyze, demonstrate inventory control techniques and take decisions with the help of various tools and concepts to maximize the production at limited or minimum cost and resources available with the company 4. To analyse, evaluate and understand the various models that deal with productivity, its control, safety and security management in production process. To judge and improve the management approach as a top level manager for the optimum growth of the organization. 5. To analyze and evaluate supply and logistics, distribution networks and its management.
16.	MBAT208	<ol style="list-style-type: none"> 1. To develop an understanding of the basic framework of research process and To Apply Research Design Framework in an organisation. 2. To apply the different forecasting techniques for development of business growth of the firm. 3. To Demonstrate and develop questionnaire and scheduling for the purpose of research. 4. To develop an ability to identify various types of sampling and apply them for the effective research outcomes. 5. To formulate testable hypotheses and choose the most appropriate tools for testing them.
Course Outcome Master of Business Administration (MBA): III Semester		
17.	MBAT301	<ol style="list-style-type: none"> 1. To address the emerging issues related to the International Business. 2. To address the economic, social, legal, political and technological issues related to business. 3. To familiarize the students with impact of international marketing on the host and guest countries. 4. To understand the interaction and the effects of international trade blocks 5. To understand the roles, functions of International Financial Institutions.
18.	MBAT302	<ol style="list-style-type: none"> 1. To understand the concepts of project, its life cycle and planning for successful project. 2. To understand the hierarchy or the organization structure for a project & the drawbacks that can lead to failure. 3. To determine the sources of finance available for the companies. 4. To learn the different techniques used for project monitoring and implementation. 5. To learn the winding - up of the project and its procedures. 6. To determine the effective strategies of project management

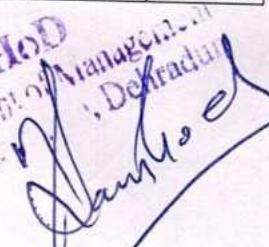
		<p>that can lead to better decision making.</p> <p>7. To understand the human aspects associated with project management.</p>
19.	MBAT303	<p>1. To understand the basic concepts and fundamentals of TQM.</p> <p>2. To understand the role of human resources in quality management and what all changes can be made in regards to human resource.</p> <p>3. To learn the various concepts of business process re-engineering and other major terms of quality systems.</p> <p>4. To understand the practices of quality management and various other methods used in order to get world class quality products</p> <p>5. To understand the various national and international standards for quality assurance.</p>
20.	MBAT311 (M1)	<p>1. To extrapolate the importance of consumer behaviour concept models in business</p> <p>2. To learn how to measure profiles, social classes & living standards of Indian consumers.</p> <p>3. To learn to use the knowledge about the behaviour of customers in order to stay in business.</p> <p>4. To outline the environmental and individual influences on consumer behaviour</p> <p>5. To understand the consumer decision making process, and the application of models in the business</p> <p>6. To be able to comprehend the knowledge of the customers' expectations, resolving customer complaints with the aim to win and retain the customer.</p>
21.	MBAT313 (M3)	<p>1. To enable students to develop a strong foundation of service as a marketing concept and its application in the real world.</p> <p>2. To enable students to appreciate the various issues and activities involved in service marketing mix</p> <p>3. To enable students to get insight into emerging trends in service marketing.</p> <p>4. To make the students learn the importance of customer relationship management.</p> <p>5. To gain the knowledge of emerging trends in globalization of services.</p> <p>6. To enable students to get insight into application of marketing of services like tourism, hospitality and transport sectors.</p>
22.	MBAT315 (M5)	<p>1. To understand the importance and impact of retailing on the economy. Comprehend retailing's role in society and, conversely, society's impact on retailing.</p> <p>2. To know the importance of customer service in retail industry and different methods to make it better.</p> <p>3. To identify various retail opportunities and be able to develop and implement a retail strategy.</p>


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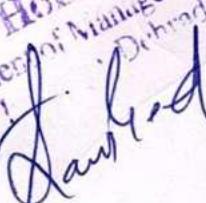
		<ul style="list-style-type: none"> 4. To be aware of the management tools that retailers consider and use when developing their merchandise mix. 5. To understand the retail market in India and understand the operations-oriented policies, methods, and procedures used by successful retailers in today's global economy. 6. To understand the role that retailing plays in the distribution component of the marketing mix. 7. To recognize the challenges faced by multichannel retailers and how retailers must adapt 8. To learn the concepts of supply chain, human resource, financial issues and decisions involved in running a retail firm and the concepts and principles for making those decisions, along with the technological interventions.
23.	MBAT321 (F1)	<ul style="list-style-type: none"> 1. To gain the knowledge about capital market 2. To understand the various investment avenues 3. To learn the relationship between the risk and return associated with different investments 4. To understand the different techniques of evaluating the investments 5. To learn the various models of evaluation
24.	MBAT322 (F2)	<ul style="list-style-type: none"> 1. To make the student understand the nature, role, structure & functions of the financial system and financial markets. 2. To understand the integration of Indian financial system and global financial markets. 3. To understand the non banking financial institution and its regulatory framework 4. To understand the management, importance & functioning of money markets, capital markets, commercial banks, non-banking financial companies, and other intermediaries. 5. To understand the regulatory framework of banking institutions. 6. To understand & acknowledge risk management process in financial institutions.
25.	MBAT323 (F3)	<ul style="list-style-type: none"> 1. To enable students to get an insight into development of international financial system. 2. To impart a strong foundation to students in area of foreign exchange market by giving them an exposure to concepts, techniques significance and application to the field. 3. To impart a knowledge of risk exposures and their management into foreign exchange market. 4. To enable students to get an insight into euro market and financial foreign operations in international financial market and how they can design a global financial strategy 5. To enable students to get insight into international financial market in the area of borrowings, depositary receipts, international development banks, and foreign currency. It also


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		seeks to introduce students to working capital management
26.	MBAT321 (H1)	<ol style="list-style-type: none"> To understand the concept of related terms. To understand and establish sound relationship between employer and employee. To clarify the use and importance of various acts and their uses in industrial relations. To understand the reasons of employee turnover and absenteeism and its impact on productivity in an organization. To recognize the significance and functioning of trade union. To understand the various labour problems associated with an organization and the methods of their resolution. To understand the legal framework related to labour issues.
27.	MBAT323 (H3)	<ol style="list-style-type: none"> To understand the concepts of human resource planning and its importance in the organization. To create an understanding related to career planning & development in the organization. To learn the basic concepts of human resource development (HRD), different approaches, HRD styles, structure and competencies. To enhance the knowledge related to the implementation of HRD programs. To develop the knowledge on the importance of implementing HRD techniques in an organization
28.	MBAT325 (HS)	<ol style="list-style-type: none"> To identify the issues & problems related to organizational change. To understand the theories of planned change & identify the related strengths & weaknesses. To understand and apply diagnostic model with concepts of organization groups & individual level. To recognize the various intervention strategies in OD. To understand the various organizational structures.
29.	MBAT342 (182)	<ol style="list-style-type: none"> To understand globalization and factors enhancing globalization. To develop the understanding of cultural and institutional differences to evaluate the challenges and opportunities of doing business in different countries. To learn the variables and dimensions of cross cultural communication. To understand a range of international management practices, the impact of organizational and national culture on work, motivation, leadership, cross -cultural communication and decision-making and negotiation. To gain the knowledge of comparative management and develop the understanding of cultural difference in interactions with different nationalities.

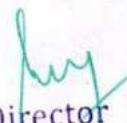

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30.	MBAP308	<ol style="list-style-type: none"> 1. To have a real world experience of career alternatives before completing the MBA 2. To learn how to integrate theory and practice. 3. To make a self assessment regarding the choice of specialization area in management. 4. Learn to appreciate work and its function in the economy. 5. Develop work habits and attitudes necessary for job success. 5. Develop communication, interpersonal and other critical skills in the job interview process.
31.	PDP - Personality Development Program	<ol style="list-style-type: none"> 1. To learn to communicate Development Program effectively, precisely, confidently and practice structural speech 2. To be able to understand the objective of the interview process, answer different types of questions, & code of conduct. 3. To be able to exhibit group handling, team spirit, leadership, take initiative, self confidence in speaking, appropriate presentation skills and learn to summarise the details crisply 4. To become aware of the nature, importance, and requirements of JAM sessions, exhibit selfconfidence in public speaking, overcome hesitation & stage fear, and show presence of mind while speaking 5. To learn time management skills, handling difficult situations, people management, develop high emotional quotient, and practice positive body language in professional & personal life. 6. To be able to write effectiv resume, application with proper content. 7. To understand the importance and imbibe professional grooming and formal dressing.

Course Outcome Master of Business Administration (MBA): IV Semester

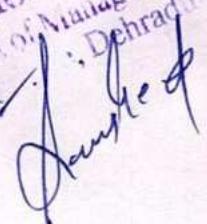
32.	MBAT402	<ol style="list-style-type: none"> 1. To Interpret and apply business ethics and morality in performing business activities. 2. To Demonstrate and apply value, norms, ethical codes and various ethical activities in a business. 3. To develop and apply moral philosophies in as manager in an organisation decision making. 4. To assess and apply ethical practices in business management in marketing, finance and HRM 5. To Develop and apply various models of corporate governance and its framework in an organisation. 6. To Assess and illustrate corporate governance and accounting code and standards in a business.
33.	MB403	<ol style="list-style-type: none"> 1. Apply strategies and analyze the role of strategist in business policy of an organization.


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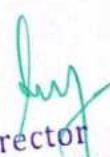

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		<ul style="list-style-type: none"> 2. To formulate strategic policies, plans to take decisions in business related problems. 3. Analyse the internal and external environment of business for the purpose of effective strategic planning. 4. Evaluate various strategies to develop effective strategies for an organization. 5. Devise and implement strategic approaches to manage a business successfully in a global context.
34.	MBAT412 (M2)	<ul style="list-style-type: none"> 1. Identify the changing roles, traits of entrepreneurs for the growth of entrepreneurship. 2. Assess internal and external factors affecting entrepreneurship and apply theories to overcome them. 3. Analysis of market and develop business plan process. 4. To develop reports and analyse various funding offered by different financial institutes 5. To Develop the role and schemes of government to support entrepreneurship.
35.	MBAT413 (M3)	<ul style="list-style-type: none"> 1. To recognize and demonstrate the significant responsibilities of sales person as a key Individual 2. To apply the process of personal selling and the levels for effective selling process in an organization 3. To describe and formulate strategies to effectively manage company's sales operations 4. To analyze the role of Sales manager and his/ her responsibilities in recruiting, motivating, managing and leading sales team. 5. To analyze the emerging issues and legal aspects in selling.
36.	MBAT421 (F1)	<ul style="list-style-type: none"> 1. To gain conceptual knowledge and analyze opportunities and challenges about rural marketing with special reference to Indian context. 2. To develop aspects of positioning and evaluate factors affecting consumer behaviour. 3. To analyze the trends in pricing, promotion and distribution. 4. To study the significance of innovation in rural markets and develop retailing in rural India. 5. To generalize the opportunities and challenges in rural sector in India.
37.	MBAT422 (F2)	<ul style="list-style-type: none"> 1. To develop the understanding of the concept of various types of financial services in India. 2. To demonstrate the role and functions of commercial banks in Indian Financial system and knowledge of depositories surrounding the financial services. 3. To analyse the role played by merchant bankers and how venture capital services grow in India. 4. To analyse the problems related to leasing, hire purchase, factoring, forfeiting and bill discounting.


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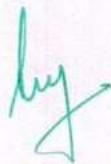
		<ul style="list-style-type: none"> 5. To develop the understanding of credit rating and process adopted by various institutions.
38.	MBAT431 (H1)	<ul style="list-style-type: none"> 1. To interpret the very basic terms of investment, various decisions that relate with investment and how the decisions that deals with investment is taken. 2. To analyses the capital market and its functioning in accordance with major focus on SEBI guidelines and foreign investors. 3. To design the fundamental analysis which affect the markets such as technical, economical, industrial and company analysis and how they can affect. To prepare and reorganize the portfolio with major focus on various important theories and models that can affect the portfolio 4. To reconstruct and evaluate the portfolio by using various measures and also analysing the role of mutual fund industry to get the overall knowledge of portfolio.
39.	MBAT433 (H3)	<ul style="list-style-type: none"> 1. Identify and create different strategies for managing the Cultural differences 2. To analyze and manage people of different cultures. 3. Create the strategies to execute the functions of hr in accordance with the organisational goals and link it to workplace diversity 4. Apply the knowledge and playing a significant role in MNC's. 5. To analyse and address the major employee issues and grievances and solving them according to the standard procedures
40.	MBAT441 (181)	<ul style="list-style-type: none"> 1. To create and apply advance leadership styles to lead a team effectively best suited in an organization. 2. To interpret and apply the effective listening, speaking, reading and writing skills for managing the workforce and official correspondence in an organisation. 3. To evaluate and apply effective delegation of authority for negotiation and managing organisational politics in an organisation. 4. To assess and apply various leadership styles to manage cultural diversity ,motivation and stress management in an organisation. 5. To evaluate and apply ethical leadership for strategic management of people during crises and changing scenario.
41.	PDP - Personality Development Program	<ul style="list-style-type: none"> 1. To create & apply the basic concepts and fundamentals of EXIM. 2. To analyse & understand the role of human resources in quality management and what all changes can be made in regards to human resource.


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		<ul style="list-style-type: none"> 3. To apply the various concepts of business process re-engineering and other major terms of quality systems. 4. To analyse the practices of quality management and apply various other methods used in order to get world class quality products 5. To create & apply various national and international standards for quality assurance for maintaining quality of the product.
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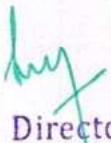
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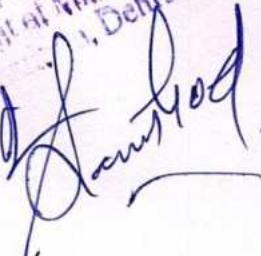
Annexure-XII

Course Outcome

B.Com (Hons.)

B.COM(H): I Semester		
S.No.	Course Code	Course Outcome
1.	BCH 1.1	<ul style="list-style-type: none"> 1. To become conscious about the environment. 2. To be able to identify potential environmental hazards and to provide management solutions to such problems. 3. To be able to locate and comprehend relationships between the natural, social and cultural environment in current scenario of environmental conditions; 4. To recognize the interlinking mutual effect of factors to cope with the environmental challenges and protecting the environment 5. To develop awareness about environmental issues; 6. To be able to communicate clearly and competently about the matters of environmental concern , Indian environmental laws and understanding of the same for creating awareness in appropriate forms
2.	BCH 1.2	<ul style="list-style-type: none"> 1. To understand the concepts of assets, liabilities revenue and expenses. 2. To understand the concepts of financial management and cost accounting. 3. To become familiar with the rules governing accounting transactions, and develop the concept of issuing Accounting Standards - National and International. 4. To learn the inventory valuation techniques . 5. To analyse financial statements with the help of various tools and techniques of accountancy. 6. To understand the concepts of Hire Purchase, operating and financial lease. 7. To learn the concept of partnership Firm - Admission, Retirement and Death of a partner, Dissolution of a partnership firm.
3.	BCH 1.3	<ul style="list-style-type: none"> 1. Become aware of legal aspects of business. 2. Become familiar with the laws governing commercial deals. 3. Create commercial contracts. 4. Understand the law relating to Sale of Goods 5. Understand the law relating to Partnership Laws 6. Understand the law relating to Negotiable Instruments
4.	BCH 1.4	<ul style="list-style-type: none"> 1. To analyse the perspective of individual in decision making as consumers and producers. 2. To understand production and cost analysis and apply those in business decisions to reduce the cost and maximize the output in a company. 3. To learn the micro economic concepts and inculcate an analytical approach to the subject matter 4. Understand the various determinants of market structures so


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		<p>that they can apply those principles in real market situation.</p> <ol style="list-style-type: none"> 5. Demonstrate marginal productivity theory of distribution theory of wages, identify different types of rent, and illustrate different theories of interest and profits. 6. Understand the models which will explain them how companies are competing with each other in the market in terms of output, production optimisation, and price levels.
5.	BCH 1.5	<ol style="list-style-type: none"> 1. To understand the basic management concepts, principles and practices. 2. To inculcate a strong foundation in the area of strategic planning and decision making 3. To learn the concept and process of organizing 4. To understand the process of staffing, leadership, motivation and communication. 5. To understand the dynamics of controlling and its emerging issues in market.
6.	BCH 1.6	<ol style="list-style-type: none"> 1. To understand the various external and internal factors that affects the business and how to scan them for planning and making different business strategies accordingly. 2. To have an overview of the various forms of economy and how it ends up in making different policies to frame the business structure of Indian economy. 3. To acknowledge the economic factors affecting the business. 4. To know the importance of global trade and foreign direct investment for the economy, its effects, and its impact. 5. To learn the important acts related to foreign and other transactions in business. 6. To understand the importance of technology and its impact on the business and the various processes.
7.	PDP	<ol style="list-style-type: none"> 1. To learn to communicate effectively, precisely, confidently and practice structural speech 2. To be able to understand the objective of the interview process, answer different types of questions, & code of conduct. 3. To be able to exhibit group handling, team spirit, leadership, take initiative, self confidence in speaking, appropriate presentation skills and learn to summarise the details crisply 4. To become aware of the nature, importance, and requirements of JAM sessions, exhibit self-confidence in public speaking, overcome hesitation & stage fear, and show presence of mind while speaking 5. To learn time management skills, handling difficult situations, people management, develop high emotional quotient, and practice positive body language in professional & personal life. 6. To be able to write effective resume, application with proper

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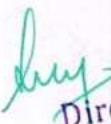
		<p>content.</p> <p>7. To understand the importance and imbibe professional grooming and formal dressing.</p>
B.COM(H):II Semester		
8.	BCH 2.1	<ol style="list-style-type: none"> 1. To make the students learn the concept of communication, its relevance in business, the communication process 2. To understand and imbibe the essentials of verbal communication, the significance of speech, the significance of body language, the concept of one to one communication 3. To understand the dos and don'ts of written communication, importance of internal communication, writing reports effectively, and the various steps to write a report. 4. To make the students learn the tools of communication, barriers to effective communication and how to overcome the barriers to achieve effective communication 5. Learned to make an effective presentation with the help of visual aids.
9.	BCH 2.2	<ol style="list-style-type: none"> 1. To understand the concept of issue share and debentures and redemption of shares and debentures. 2. To make them understand how to make the financial statement of companies and how the dividend is distributed among shareholders. 3. Explaining the meaning of goodwill and various methods of valuation of goodwill. 4. To make them understand the meaning of amalgamation and difference between amalgamation, merger and internal reconstruction. 5. To make them the meaning of holding company and how the financial statement of holding company prepared.
10.	BCH 2.3	<ol style="list-style-type: none"> 1. To make them understand the basic of companies act and various tribunals where the complaints can be filed. 2. To enable them with the understanding of basic documents required for formation of company. 3. To make them understand the meaning of director and what are the qualification required to be appointed as a director. 4. To make them understand the meaning of dividend and provision related to audit. 5. To make understand what is depository and what are its participants.
11.	BCH 2.4	<ol style="list-style-type: none"> 1. To understand the knowledge of basic fundamentals of macro-economic in short run and long run. 2. To analyze modern tools of macro-economics in dynamic environment. 3. To examine the policy framework regarding inflation and unemployment in Indian economy. 4. To understand basic phenomena of open economy, and

		exchange rate differentials in large economy. 5. To elaborate the foundations of fixed investment, effects of tax and maintain a balance between demand and supply.
12.	BCH 2.5	1. To understand the basic importance of finance for smooth running of business key concern is regarding Time value of money and sources of finance. 2. To learn how to deal with investment decision which is concern for future progress of business. 3. To understand the yardstick to measure the worth of investments proposals and perform the important role of accept/reject criterion. 4. To understand the importance of dividend as reward of investment made in the company. 5. How to manage cash and day to day activities of business to manage ideal assets and plan for good capitalization.
13.	BCH 2.6	1. To understand basic meaning of average along with various tools of measure of dispersion. 2. To examine application of profitability in statistics in order to arrive at some specific point (central bank) 3. To understand practical applicability of regression tool in different fields of statistics such as comparison, ranking etc. 4. To find out the use of time series in practical fields of share and stock market. 5. To understand the concept of different tests such as t-test, 2-test, ANNOVA in order to solve out statistical pattern.
B.COM(H):III Semester		
14.	BCH 3.1	1. To understand the concepts of human resource planning and its importance in the organization. 2. To create an understanding related to career planning & development in the organization. 3. To learn the basic concepts of human resource development (HRD), different approaches, HRD styles, structure and competencies. 4. To enhance the knowledge related to the implementation of HRD programs. 5. To develop the knowledge on the importance of implementing HRD techniques in an organization.
15.	BCH 3.2	1. To make them understand difference between financial and cost accounting and the various elements of cost. 2. To make them understand different methods of inventory valuation and wage payment. 3. To make them understand the concept of overheads and treatment of certain items like bad debts and research and development expenses in cost accounting. 4. To make them learn various methods by which cost of a product can be calculated.

		<ul style="list-style-type: none"> 5. To make them understand how the reconciliation can be made between cost accounting and financial accounting.
16.	BCH 3.3	<ul style="list-style-type: none"> 1. To educate basic understanding of creating business document using Microsoft word. 2. To understand fundamentals of powerpoint presentation and its various tools like drawing, designing, editing etc. 3. Extended understanding on spread sheets its function and its application in conducting business. 4. To make them understand how to use various formulas in spreadsheet. 5. This unit gives the basic understandino of DBMS.
17.	BCH 3.4	<ul style="list-style-type: none"> 1. Apply the marketing concepts in Indian context for economic development. 2. Evaluate consumer behavior and decision making process. 3. Design pricing, advertising and distribution strategies. 4. Evaluate marketing and physical distribution processes. 5. Analyze marketing in global and rural areas for future challenges.
13.	BCH 3.5	<ul style="list-style-type: none"> 1. To know the elements of banking and basic principle of commercial bank in India. 2. To understand the rules of crossing cheques under statutory protection of Indian banks. 3. To know about principles of internet banking virtual banking and e payment benefits. 4. To understand the basic fundamentals of insurance. 5. To figure out the importance of life insurance.
18.	BCH 3.6	<ul style="list-style-type: none"> 1. To understand the concept of entrepreneurship, small business and its difference from large scale business 2. To understand the process of entrepreneurship and the institutional facilities available to an entrepreneur in India 3. To learn the process of starting a new business venture and create the relevant business plan. 4. To learn about the valuation process of business and to know the financing sources for it. 5. To gain the knowledge on legal aspects and government policy relating to entrepreneurship.

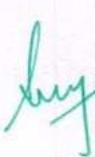
B.COM(H):IV Semester

		<ul style="list-style-type: none"> 1. To address the emerging issues related to the International Business. 2. To address the economic, social, legal, political and technological issues related to business. 3. To familiarize the students with impact of international marketing on the host and guest countries. 4. To understand the interaction and the effects of international trade blocks 5. To understand the roles, functions of International Financial
19.	BCH- 4.1	


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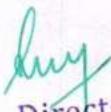
20.	BCH-4.2	<ol style="list-style-type: none"> 1. To appreciate the concept and need of business ethics. 2. To gain knowledge of value, norms, ethical codes and various ethical activities of a business 3. To understand the role of moral philosophies in decision making 4. To understand the ethical practices in business management in marketing, finance and HRM 5. To gain knowledge of corporate governance and its framework
21.	BCH-4.3	<ol style="list-style-type: none"> 1. Analyse the personality, perception, learning motivation and attitude of consumer for meeting organizational sales targets. 2. Evaluate consumer behaviour influences, their relationships and impact in consumer behaviour 3. Compare consumer behaviour models and impact of theories and concepts to marketing decisions 4. Implement appropriate combinations of buying behaviour theories and concept 5. Demonstrate application of knowledge of consumer behaviour in marketing
22.	BCH-4.4	<ol style="list-style-type: none"> 1. Understanding the concept of investment environment in context to various financial markets 2. The concept of Bonds and risk and credit rating related to it 3. Explaining Various analysis tools and dividend approach to equity valuation 4. Understanding the portfolio and its elements such as diversification risk and return involved in it 5. Role of SEBI and different financial companies in order to safeguard the interest of investor
23.	BCH-4.5	<ol style="list-style-type: none"> 1. To understand the concept of related terms 2. To understand and establish sound relationship between employer and employee 3. To clarify the use and importance of various acts and their uses in industrial relations 4. To recognize the significance and functioning of trade union. 5. To understand the various labour problems associated with an organization and the methods of their resolution
24.	BCH-4.6	<ol style="list-style-type: none"> 1. Demonstrate the knowledge of service marketing concepts. 2. Discuss key linkages between marketing and other business functions in the context of designing and operating an effective service system. 3. Demonstrate ability to analyze service shortcomings and correct them to create service excellence. 4. Identify and discuss characteristics and challenges of managing service firms in financial field. 5. Apply the service marketing concepts in tourism, travel and


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		transport field.
25.	BCH-4.7	<ul style="list-style-type: none"> 1. To gain the knowledge about capital market 2. To understand the various investment avenues 3. To learn the relationship between the risk and return associated with different investments 4. To understand the different techniques of evaluating the investments 5. To learn the various models of evaluation
26.	BCH 4.8	<ul style="list-style-type: none"> 1. To understand the concepts of project, its life cycle and planning for successful project. 2. To understand the hierarchy or the organization structure for a project & the drawbacks that can lead to failure. 3. To determine the sources of finance available for the companies. 4. To learn the different techniques used for project monitoring and implementation. 5. To learn the winding - up of the project and its procedures.
27.	BCH 4.9	<ul style="list-style-type: none"> 1. To study an empirical research topic 2. To gain exposure while doing survey or research 3. To enrich the knowledge base with literature review on the current topic 4. To be able to apply research test wherever applicable solve problems
BCOM(H):V Semester		
28.	BCH 5.1	<ul style="list-style-type: none"> 1. To understand the advantages of GST and defects in the structure of indirect taxes prior to GST. 2. To make them understand what is taxable event in case of GST and what is the meaning of supply. 3. To explain the meaning of input tax credit and how it can be claimed. 4. To enable them with the basic understanding of various types of assessment in GST. 5. To enable them with the basic understanding of the provision of GST in case of E-commerce.
29.	BCH 5.2	<ul style="list-style-type: none"> 1. To understand the investment opportunities and their feasibility towards project. 2. To learn about the technicalities of location and layout under the provision of govt. regulations 3. To provide adequate knowledge about capital expenditure decisions. 4. To learn about the handling of projects by analyzing risk. Guidelines for project evaluation and formulation network techniques.
30.	BCH 5.3	<ul style="list-style-type: none"> 1. To make them understand what is auditing and different types of auditing

		<ul style="list-style-type: none"> 2. To enable them with the process of auditing and what are the evidence to be maintained while doing auditing. 3. To understand the meaning of vouching and verification. 4. To make them understand the qualification to be required to be auditor and how audit reports be prepared 5. To make them understand the procedure when fraud is suspected.
31.	BCH 5.4	<ul style="list-style-type: none"> 1. To make them understand financial structure and what are the types of financial markets. 2. To make them understand various instruments of money market and capital market. 3. To understand the role of financial institution on Indian economy. 4. To make them understand financial services provided by the financial institution. 5. To enable the basic understanding leasing and hire purchase and difference between them.
32.	BCH Elective Group(i) :WORKING CAPITAL MANAGEMENT	<ul style="list-style-type: none"> 1. To familiarize the students with their rights as a consumer, Group I(ii) handling complaints and difference redressing system.:CONSUMER 2. To analyze the social framework of consumer rights and legal PROTECTION framework of consumer rights as per the CPA, 1986.LAWS 3. Understanding the procedure of redress of consumer complaints. 4. Organized the various district forums, commissions and roles of supreme -court under the CPA. 5. To know about the role of different agencies in establishing standards. 6. To know the evolution of consumer movement in INDIA.: Recent developments in consumer protection in INDIA. : Role of BIS, ISI, AGMARK, HALLMARK and surveillance.
33.	BCH Elective Group(ii) :WORKING CAPITAL MANAGEMENT	<ul style="list-style-type: none"> 1. To impart knowledge about the basic principles of working capital 2. To learn the tools and techniques of inventory management. 3. To learn the skills and techniques of credit monitoring. 4. How to manage the cash and its benefits towards its disbursement 5. To know recent policies of bank financing.
34.	BCH Elective Group(iii) :WORKING CAPITAL MANAGEMENT	<ul style="list-style-type: none"> 1. To familiarize the students with their rights as a consumer, handling complaints and difference redressing system. 2. To analyze the social framework of consumer rights and legal framework of consumer rights as per the CPA, 1986. 3. Understanding the procedure of redress of consumer complaints.Organized the various district forums, commissions and roles of supreme -court under the CPA.


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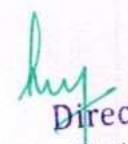
		<ul style="list-style-type: none"> 4. To know about the role of different agencies in establishing standards. 5. To know the evolution of consumer movement in INDIA.
35.	BCH Elective Group(iv) :WORKING CAPITAL MANAGEMENT	<ul style="list-style-type: none"> 1. To enhance the skills needed for computerized accounting. 2. To develop basic statistical analyzes of mean median and mode 3. To know importance of computerized accounting system 4. To learn fundamentals of designing computerized accounting system 5. To know how to design accounting support system and payroll system for an accounting usino form.
36.	BCH Elective Group(v): CORPORATE TAX PLANNING	<ul style="list-style-type: none"> 1. To provide basic knowledge of corporate tax planning in INDIA. 2. To learn tax planning with reference to financial management decisions. 3. To learn tax planning with reference to employees remuneration insurance compensation and distribution of assets at the time of liquidation. 4. To know the special provision relating to non - residents. 5. To provide basic information about business restructuring and how to convert company into LLP.
BCOM(H):VI Semester		
37.	BCH- 6.1	<ul style="list-style-type: none"> 1. To address the emerging issues related to the International Business. 2. To address the economic, social, legal, political and technoloqical issues related to business. 3. To familiarize the students with impact of international marketing on the host and guest countries. 4. To understand the interaction and the effects of international trade blocks 5. To understand the roles, functions of International Financial Institutions
38.	BCH-6.2	<ul style="list-style-type: none"> 1. To appreciate the concept and need of business ethics. 2. To gain knowledge of value, norms, ethical codes and various ethical activities of a business. 3. To understand the role of moral philosophies in decision making. 4. To understand the ethical practices in business management in marketing, finance and HRM 5. To gain knowledge of corporate governance and its framework.


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39.	BCH-6.3	<ol style="list-style-type: none"> Analyse the personality, perception, learning motivation and attitude of consumer for meeting organizational sales targets. Evaluate consumer behaviour influences, their relationships and impact in consumer behaviour. Compare consumer behaviour models and impact of theories and concepts to marketing decisions. Implement appropriate combinations of buying behaviour theories and concept. Demonstrate application of knowledge of consumer behaviour in rmarketinc.
40.	BCH-6.4	<ol style="list-style-type: none"> Understanding the concept of investment environment in context to various financial market Understanding the concept of Bonds and risk and credit rating related to it Explaining Various analysis tools and dividend approach to equity valuation Understanding the portfolio and its elements such as diversification risk and return involved in it Role of SEBI and different financial companies in order to safeguard the interest of investor
41.	BCH-6.5	<ol style="list-style-type: none"> To understand the concept of related terms. To understand and establish sound relationship between employer and employee. To clarify the use and importance of various acts and their uses in industrial relations. To recognize the significance anti functioning of trade union. To understand the various labour problems associated with an organization and the methods of their resolution
42.	BCH 6.6	<ol style="list-style-type: none"> To study an empirical research topic To gain exposure while doing survey or research To enrich the knowledge base with literature review on the current topic To be able to apply research test wherever applicable to solve problems

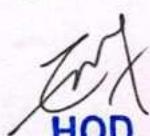

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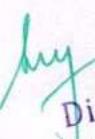
**Course Outcome
Bachelor of Journalism
& Mass
Communication
(BJMC)**

Journalism and Mass Communication: 1st Semester

S.No.	Course Code	Course Outcome
01.	BAJMC001	<ul style="list-style-type: none"> 1. Understand the history of printing and newspapers in India, learning about key figures and the growth of regional media. 2. Understand the essence of news, its values and types, enabling differentiation between hard and soft news. 3. Apply news writing techniques including story organization and the inverted pyramid structure to produce clear and engaging content. 4. Evaluate the ethical responsibilities in journalism, promoting integrity, accountability and critical thinking in reporting. 5. Analysis journalism's evolving trends including technological advancements to adapt and contribute effectively to the media industry.
02.	BAJMC002	<ul style="list-style-type: none"> 1. Evaluate how media impacts daily life and examining the influence of mobile phones, television and social media. 2. Understand communication types, processes and feedback in both way channels, discerning between mediated and non-mediated contexts. 3. Analysis the importance of mass communication in society, explaining its processes, models and theories. 4. Analyze communication models components, functions and implications for message dissemination and reception in various contexts. 5. Explore mass media's role in modern society, analyzing its impact on democracy and mass culture to understand media-society dynamics.
03.	BAJMC003	<ul style="list-style-type: none"> 1. Understand function of newspapers, helping students to understand the process of news production. 2. Develop editing skills, headline writing and language usage, and understand the roles of editors in maintaining newspaper quality. 3. Apply practical skills in newspaper layout and design, enabling students to create visually appealing newspaper layouts for various sections. 4. Understand modern newspaper industry tools QuarkXPress and Adobe Photoshop, essential for efficiently managing text and images in print and digital formats. 5. Analyze advanced newspaper editing concepts and visual integration to prepare students for evolving industry standards and effective contributions to print media production.



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04.	BAJMC004	<ol style="list-style-type: none"> 1. Understand environmental concepts, significance and human-environment relationship. 2. Understand insight into ecology, biodiversity and wildlife conservation in India, highlighting the imperative of preserving ecosystems for sustainable development. 3. Identify environmental pollution types, sources and impacts, understand biological systems to prepare students for tackling environmental challenges. 4. Understand disaster management and conservation strategies to mitigate impacts and build community resilience. 5. Evaluate media's impact on environmental awareness, sustainability promotion and effective communication for students.
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Journalism and Mass Communication: II Semester

05.	BAJMC005	<ol style="list-style-type: none"> 1. Understand news reporting including reporter roles and practical skills for effective news gathering and distribution. 2. Apply the art of interviewing, empowering students to conduct engaging interviews and write compelling news stories. 3. Analyze trends in news presentation, supplements and columns understand recognizing changes in news consumption across media platforms. 4. Examine news sociology, shaping news treatment and newsroom pressures, understanding of news production. 5. Demonstrate proficiency in journalistic ethics, objectivity and integrity ensuring adherence to professional standards.
06.	BAJMC006	<ol style="list-style-type: none"> 1. Understand photography's history and evolution, appreciating its role in mass media and visual communication from its origins to digital forms. 2. Understand photography equipment and techniques learn its principles to capture compelling images effectively. 3. Apply lighting techniques for indoor and outdoor photography, manipulating light to enhance photograph mood and quality. 4. Develop skills in photojournalism, understanding news values and genres to effectively tell visual stories across different contexts. 5. Apply photo editing with popular software enhancement for professional image quality.
07.	BAJMC007	<ol style="list-style-type: none"> 1. Understand economic development and underdevelopment, focusing on India's status as a developing economy and analyze development strategies. 2. Explore factors affecting economic growth, evaluate India's development path and assess strategies to tackle inequality challenges. 3. Analyze agriculture and industry's roles in India's economic development, examining government policies to assess their contributions to growth.

		<ul style="list-style-type: none"> 4. Evaluate the roles of public, small-scale and cottage industries in India's growth and industrial sickness and government policies challenges. 5. Examine external factors and international organizations influence India's economic growth.
08.	BAJMC008	<ul style="list-style-type: none"> 1. Understand sentence formation for clear communication in writing and speech. 2. Develop various writing styles and interview question preparation for engaging content creation. 3. Understand the media language's importance and trends to effectively utilize common words in news and advertisements. 4. Enhance language skills for better expression in writing and speech 5. Develop translation skills by practicing different translating news and media scripts for effective cross-cultural communication.

Journalism and Mass Communication: III Semester

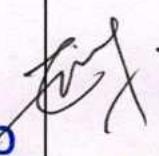
		<ul style="list-style-type: none"> 1. Understand India's media legal and ethical foundations, apply them to analyze media practices. 2. Assess ethical implications of modern media technologies, considering relevant laws and court rulings. 3. Analyze representations of gender and societal norms in media and propose responsible approaches to media representation. 4. Examine media regulation and its impact on content, including debates on censorship and cultural accountability. 5. Examine media's role in addressing social issues and marginalized communities, considering ethics and laws using case studies.
09.	BAJMC009	<ul style="list-style-type: none"> 1. Understand TV's impact in India including characteristics and influence on media consumption with satellite and cable TV. 2. Understand sound basics for TV production, recording techniques and radio characteristics. 3. Understand TV's visual basics for analyzing and creating visual content. 4. Apply writing and editing television news, along with camera operation, 5. Analyze broadcast news and production cycles, deepening understanding of television journalism.
10.	BAJMC010	<ul style="list-style-type: none"> 1. Understand the basics of design and graphics including visualization techniques to effectively communicate visual ideas. 2. Develop skills in art and illustration tools and techniques to enhance creativity and style in graphical representations. 3. Apply typography including typeface selection and spacing to create visually appealing designs. 4. Apply practical skills in type composition across HQD.
11.	BAJMC011	<ul style="list-style-type: none"> 1. Understand the basics of design and graphics including visualization techniques to effectively communicate visual ideas. 2. Develop skills in art and illustration tools and techniques to enhance creativity and style in graphical representations. 3. Apply typography including typeface selection and spacing to create visually appealing designs. 4. Apply practical skills in type composition across HQD.

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		<p>mechanical, and digital platforms using computer software for design purposes.</p> <p>5. Understand printing methods and safety for professional publication design and production within industry standards.</p>
12.	BAJMC012	<ol style="list-style-type: none"> Analyze and use different broadcasting formats, understand their unique presentation styles. Understanding production control rooms and studio's equipment and processes to industry standards. Develop field reporting skills for radio including news writing and editing ensuring clear and concise communication. Create radio programs effectively using ideation and scriptwriting techniques with balancing creativity and constraints. Demonstrate sound recording/editing proficiency for high-quality radio content.
13.	BAJMC013	<ol style="list-style-type: none"> Understand culture and value systems, identify barriers in intercultural communication. Analyze media using Frankfurt School theories, exploring its representations for understanding media-society dynamics. Analyze media texts for social portrayals, understanding how they construct identities and power dynamics. Evaluate audience behavior and engagement with media messages, focusing on women, subcultures, music, and fandom. Analyze media tech's influence on culture including folk and live performance. Examine new media's impact on cultural expression.

Journalism and Mass Communication: IV Semester

		<ol style="list-style-type: none"> Analyze global communication's including propaganda's role and radio's impact to understand media complexities globally. Examine the media's role in Cold War rivalry and NWICO debates for global power insights. Explore the media's impact on global conflicts from World Wars to 9/11, to understand its role in shaping and reflecting events. Examine media and cultural globalization including cultural imperialism and global cultures to understand global cultural exchange dynamics. Analyze media's global economic and cultural impact, citing examples including Zee TV and Bollywood, to understand its role in globalization.
14.	BAJMC014	

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15.	BAJMC015	<ol style="list-style-type: none"> 1. Understand advertising basics and address criticisms to provide an overview of the advertising field. 2. Analyze product advertising strategies to prepare for effective campaigns. 3. Explore advertising agency functions, media platforms and budgeting importance. 4. Apply copywriting and advertising production skills and outdoor formats through hands-on assignments. 5. Understand advertising ethics and legalities to navigate complexities responsibly with standards and stay current on industry trends.
16.	BAJMC016	<ol style="list-style-type: none"> 1. Understand new media's impact on communication and society through digital media and computer-mediated communication. 2. Analyze virtual cultures, digital journalism and social media's role in activism to understand online communication evolution. 3. Evaluate digitized journalism's ethical and legal aspects including authorship, piracy, copyright, and ethics. 4. Develop web writing skills for engaging digital content creation including multimedia storytelling and effective linking. 5. Create visual and content designs for online platforms including website planning, audience analysis and blog creation.
17.	BAJMC017	<ol style="list-style-type: none"> 1. Understand development concepts, models and challenges in developing societies, comparing developed and developing nations. 2. Analyze the significance of development communication in societal progress and media's role. 3. Explore agricultural communication's role in rural development, assessing extension methods and case studies. 4. Evaluate development and rural extension agencies, identifying communication challenges and economic frameworks through program case studies. 5. Develop writing skills for rural development messages, focusing on radio and TV formats to effectively promote socio-economic progress in rural areas.
18.	BAJMC018	<ol style="list-style-type: none"> 1. Understand media's impact on individuals and society, focusing on cultural change and social divisions, particularly in-rural-urban India. 2. Analyze gender theories in media, focusing on Indian media's gender debates, representations, and power dynamics. 3. Examine media's role in human rights, using theoretical perspectives and case studies to understand local and global human rights promotion. 4. Evaluate human rights protection systems and activism including NGO and media roles in addressing violations in India. 5. Analyze human rights, terrorism, and media intersection

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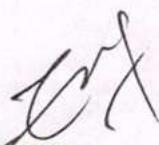
		through case studies for nuanced activism.
Journalism and Mass Communication: V Semester		
19.	BAJMC019	<ol style="list-style-type: none"> Understand Indian cinema's evolution, journey of parallel and commercial cinema and industry challenges. Analyze cinematic language including shot composition, mise-en-scene, editing techniques, and sound types. Examine film styles, German Expressionism, Film Noir, and French New Wave, exploring diverse storytelling and aesthetic approaches. Evaluate alternative cinema visions, Third Cinema and feminist film theory, studying auteurs. Analyze Hindi cinema's cultural impact considering legendary filmmakers, the Indian New Wave, globalization, and the multiplex era.
20.	BAJMC020	<ol style="list-style-type: none"> Understand PR's history and role in Indian organizational management. Develop PR skills in planning, research, and evaluation, understand tools for effective campaigns. Explore communication challenges in Indian public and private sectors, understanding PR agencies' role in organizational communication. Analyze stakeholder relations complexities including healthcare and NGOs, develop crisis management skills through case studies. Understand PR role in legal aspects, technology integration, and ethics, staying updated with trends and engaging with professional organizations.
21.	BAJMC021	<ol style="list-style-type: none"> Understand event management basics including team roles, ethics, and design principles for effective planning. Demonstrate proficiency in feasibility studies, SWOT analyses, and setting clear event objectives, improving strategic decision-making. Understand protocols and leadership for managing event teams, promoting effective teamwork. Develop presentation and computer skills for professional event communication. Apply research and planning to various events, preparing comprehensive proposals for security, safety, and crowd management.
22.	BAJMC022	<ol style="list-style-type: none"> Understand India's governance system and understand the principle of separation of powers. Examine the role of the President of India and the distribution of legislative powers between the Union and States. Analyze India's foreign policy objectives and engagement with Apex international organizations to grasp India's global role. Analyze contemporary issues in Indian and global contexts, including international, national, and regional current

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		<p>affairs.</p> <ol style="list-style-type: none"> 5. Develop research and analytical skills by evaluating current affairs for discussions and decision-making on societal issues.
Journalism and Mass Communication: VI Semester		
23.	BAJMC023	<ol style="list-style-type: none"> 1. Understand media management basics and management schools for effective organization management. 2. Analyze media industry challenges, market forces, and performance metrics for navigating the media landscape. 3. Understand the structure of news media organizations in India including roles, workflow, and guidelines. 4. Explore media economics, strategic management, and marketing concepts for developing strategic approaches to media management. 5. Analyze case studies of successful media entrepreneurship and leadership for insights into effective management practices.
24.	BAJMC024	<ol style="list-style-type: none"> 1. Understand research purpose, methods, and theoretical foundations to prepare for research. 2. Explore various research methods in media studies, surveys and content analysis to choose the right method for research goals. 3. Apply sampling tools, techniques and data collection methods for gathering relevant and accurate data including industry standards. 4. Apply skills in data analysis and report writing for effectively communicating research findings. 5. Explore advanced research methods and ethical considerations in media research for a deeper understanding of complex practices.
25.	BAJMC025	<ol style="list-style-type: none"> 1. Understand documentary filmmaking, realism debates, and representation modes for effective analysis. 2. Develop proficiency in pre-production for organized project planning. 3. Apply practical knowledge in production for efficient project execution. 4. Apply post-production skills for polished documentary projects. 5. Explore documentary distribution landscape for effective navigation and success.


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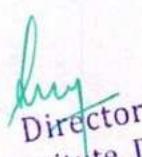
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Annexure-XIV

**Course Outcome
B.Sc.Agriculture
(Hons.)**

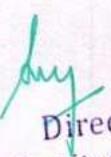
Department of Agriculture: III Semester

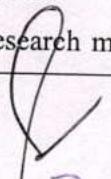
S.No.	Course Code	Course Outcome
1.	BSAC-301	<ol style="list-style-type: none"> 1. To discuss and apply the cultural practices of field crops. 2. To apply the modern techniques and concepts of crop production 3. To understand and apply the basic concepts of agronomic principles & much more than crop to crop management approaches 4. To formulate the description and classification, economy, crop cycle and environmental requirements of crops 5. To analyse geographical distribution and economic importance of Kharif season field crops among farmers
2.	BSAC-302	<ol style="list-style-type: none"> 1. To know about the basics of plant breeding and to apply the methods of plant breeding in hybridization programme 2. To learn, explain and propose the application of plant breeding in agricultural crops 3. Creation and development of hybrids in different crops 4. Understand and apply the procedure of variety release and notification 5. Maximize the future prospects and application of new technologies in the field of plant breeding
3.	BSAC-303	<ol style="list-style-type: none"> 1. To Understand and analyze the application of agriculture business & management 2. To understand and discuss about the marketing strategies used in agriculture among farmers 3. To get acquainted with rural and urban banks and to classify the government policies, subsidies in front of farmers for promotion 4. Analyze NABARD banks and AFC, problems and issues in

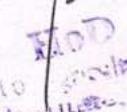

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		<p>institutional agricultural credit system.</p> <p>5. To understand, analyze and discuss about the types of management decisions, decision making techniques and processes.</p>
4.	BSAC-304	<p>1. Establishment of consultancy farm</p> <p>2. Helping farmers in smart way</p> <p>3. Establishment of consultancy farm</p>
5.	BSAC-305	<p>1. Knowledge and application of different types of engines and associated processes</p> <p>2. Apply concepts regarding cost associated with farm machinery</p> <p>3. Study of sources of farm power and mechanization and application of same in agriculture</p> <p>4. Understanding and analyzing concept of machinery and types of tools used for different types of farm processes</p> <p>5. To identify the need of farm mechanization in India</p>
6.	BSAC-306	<p>1. To understand and apply the cultivation practices of vegetable crops and spices</p> <p>2. To know the importance of vegetables and spices and estimate their value in national economy.</p> <p>3. Categorization of vegetable crops and discussion of their importance with the farmers.</p> <p>4. Illustration and formulation of marketing strategies of vegetable crops and spices among farmers</p> <p>5. Identification and examination of trends that influence vegetable production in India and abroad.</p>
7.	BSAC-307	<p>1. Develop a general understanding of the breadth and interdisciplinary nature of environmental issues.</p> <p>2. Develop the qualitative and quantitative research methods to</p>

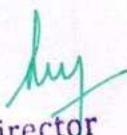

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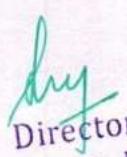
		<p>gain empirical evidence bearing on evaluation of environmentally sustainable alternatives.</p> <ol style="list-style-type: none"> 3. Interpret key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions. 4. To be able to apply concepts and methods from ecological and physical sciences in environmental problem solving. 5. Discover a general understanding of the breadth and interdisciplinary nature of environmental issues.
8.	BSAC-308	<ol style="list-style-type: none"> 1. Develop a general understanding of the breadth and interdisciplinary nature of environmental issues. 2. Develop the qualitative and quantitative research methods to gain empirical evidence bearing on evaluation of environmentally sustainable alternatives. 3. Interpret key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions. 4. To be able to apply concepts and methods from ecological and physical sciences in environmental problem solving. 5. Discover a general understanding of the breadth and interdisciplinary nature of environmental issues.
9.	BSAC-309	<ol style="list-style-type: none"> 1. Identifying the importance and role of livestock in the national economy. 2. Analyze measures and factors affecting the milking, feeding and meat production of livestock and poultry 3. Analyse the factors affecting the anatomical and behavioural systems of livestock and poultry. 4. Discover and identify the principles of housing and space required for different livestock species in order to maintain sanitation and control livestock diseases. 5. Explain and analyze the methods of breeding and feeding of

		livestock and setting up measures to keep their record.
Department of Agriculture: IV Semester		
10.	BSAC-401	<ol style="list-style-type: none"> 1. Discuss & utilization of rabi season crops like wheat, chickpea, lentil, mustard, barley, oats, sunflower etc. 2. Select the botanical description & cultivation practices of rabi crops. 3. Motivate the modern concepts of crop production. 4. Identify the agronomic practices and crop management approaches. 5. Analyse the geographical distribution and agronomic practices of rabi season crops
11.	BSAC-402	<ol style="list-style-type: none"> 1. Construct general and broad skills in horticultural practices and plant identification 2. To extend and apply more specific knowledge in areas of ornamental horticulture including garden maintenance, turf care, arboriculture, landscaping, nursery work, etc 3. To illustrate and identify the principles and practices of annual and perennial ornamental plants 4. To discuss techniques related to post harvest management of ornamental plants 5. Ability to create the project formulation & evaluation
12.	BSAC-403	<ol style="list-style-type: none"> 1. Knowledge on different energy sources 2. Select appropriate energy technologies to meet the energy demand of the state in agriculture except the use of hydro power energy 3. It will enable students to understand the concepts in the production process of biodiesel, bio-fuels and briquettes
13.	BSAC-404	<ol style="list-style-type: none"> 1. Analysis of soil for plant growth 2. Summarise the biochemical processes regulating the nutrient cycle and deduce its effect on human health.


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		<ul style="list-style-type: none"> 3. Classify plant nutrients which plays major role in plant growth. 4. Compile various fertilization systems and its benefits. 5. Plan out and defend schedule for fertilization of a given crop.
14.	BSAC-405	<ul style="list-style-type: none"> 1. Analysing the importance of cultivation practices of fruit crops 2. Discuss about the cultivation practices of plantation crops with Uses 3. Study and analyze the application of Post harvest management of different crops 4. Development of knowledge about the major insects, pests and disease of fruit and plantation crops, their symptoms and their control measures 5. Build an understanding about the access of storage and marketing of different fruits & plantation crops
15.	BSAC-406	<ul style="list-style-type: none"> 1. understanding seed development, germination, vigour, deterioration and identify the relationship between laboratory tests and field performance 2. Acquaint the students with the principles of seed production for agronomic and horticultural crops within and outside of the region of adaptation and the techniques used in seed conditioning 3. Understand and analyze seed increase systems, seed testing and the laws and regulations related to marketing high quality seed 4. To learn and apply the seed legislation & seed law enforcement including IPR and PBR in India and discuss it among stakeholders 5. To get information about recent developments in seed industry and elaborate it among the farmers


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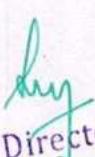

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16.	BSAC-407	<ol style="list-style-type: none"> 1. Analyze the major aspects of agricultural practices and traditions through time and throughout the world 2. Outline and apply the relationships among culture, economics, politics, science, and agricultural development 3. Describe and Analyze the cross-cultural interactions and exchange that linked the world's people and facilitated agricultural development is also expected 4. Demonstrate and analyze how agricultural scientists are attempting to minimize agricultural pollution and sustain food production adequate for the world's population 5. To acquaint the student from agricultural as well as other disciplines with conventional and alternative agricultural production practices throughout the world and their effect on long-term sustainability and environmental quality.
17.	BSAC-408	<ol style="list-style-type: none"> 1. To understand the basic concept of marketing and build it in the field of agriculture 2. Creates better and exportable standards of goods 3. Increase profit of farmers by applying marketing strategies in agricultural products 4. Identify and define the steps of the managerial decision making process. 5. Discover and recognise the relationship between labour and management.
18.	BSAC-409	<ol style="list-style-type: none"> 1. Knowledge about weather elements that have direct relevance to agriculture and apply it in crop production 2. To develop weather based agro-advisories and to sustain crop production by utilizing weather forecast instruments 3. To monitor the drought condition in crop as well as different areas and formulate their management 4. To impart knowledge and its application in acquaint with recent developments in agro meteorology with historical


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		<p>development of climate change</p> <p>5. To learn and classify about the formation of dew, fog, mist , frost, snow, rain, hail, precipitation, cloud formation and movement</p>
Department of Agriculture: V Semester		
19.	BSAC-501	<ol style="list-style-type: none"> 1. Classify and explain the pests in different crops 2. Understand and analyze the methods and procedure of insect pest management 3. Analyze the symptoms of different pest attack 4. Application of control measures in different crops 5. Distinguish between the harmful & beneficial insects
20.	BSAC-502	<ol style="list-style-type: none"> 1. Students will understand the role of fertilizers and manures in supplying nutrients to plants so as to achieve high fertilizer use efficiency 2. They will have an overall idea on preparation of organic manures and composts which is needed for sustainable agriculture • 3. Evaluation soil fertility by using suitable methods 4. Analysis and recommendation some of the essential nutrients in soil and plants
21.	BSAC-503	<ol style="list-style-type: none"> 1. Explain and discuss the identification of disease, their causal organism and the life cycle. 2. Evaluate the concept of disease cycle, mechanism of disease development, dissemination and transmission of plant pathogens, Epidemiology and Disease forecasting 3. Application of plant disease management- chemical control, biological control and development of transgenic for controlling plant diseases 4. To impart knowledge on detection and diagnosis of plant diseases and to discover its management 5. Categorization of nature of damage seasonal incidence of

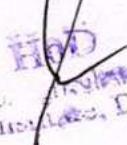

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		crops
22.	BSAC-504	<ol style="list-style-type: none"> 1. Development of knowledge on diagnosing different diseases of field and horticultural crops based on the symptoms expressed in the field. 2. Acquire the skill of collection and preservation of diseased Specimens 3. Development of knowledge on diagnosing different diseases of field and horticultural crops based on the symptoms expressed in the field
23.	BSAC-505	<ol style="list-style-type: none"> 1. Getting idea on centres of origin, distribution of species, wild relatives of various kharif crops. 2. Exposure to various conventional and modern plant breeding methods for the improvement of important kharif crops. 3. Visit to seed production plots, AICRP plots of different field crops and getting a practical knowledge on hybrid development
24.	BSAC-506	<ol style="list-style-type: none"> 1. Understand theories of entrepreneurship and business development 2. Be able to state, understand and evaluate the key factors needed to develop a successful business 3. Describe the concepts of entrepreneurship, agripreneurship, characteristics of entrepreneur, motivation and entrepreneurship and project management 4. Gain knowledge and skills in project formulation, project report preparation and evaluation of projects 5. Explain entrepreneurship development programme, government policies, schemes and incentives for promotion of entrepreneurship and social responsibility of business
25.	BSAC-507	<ol style="list-style-type: none"> 1. Improve knowledge about soil classification on the basis of their characteristics. 2. Understand and utilize the tools and techniques of soil survey

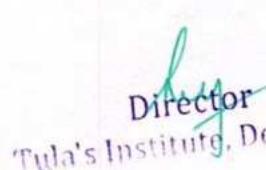
		<p>in agriculture.</p> <ol style="list-style-type: none"> 3. To apply the application of remote sensing in agriculture. 4. To apply the image interpretation technique in soil and crops classification.
26.	BSAC-508	<ol style="list-style-type: none"> 1. Improve knowledge about soil classification on the basis of their characteristics. 2. Understand and utilize the tools and techniques of soil survey in agriculture. 3. To apply the application of remote sensing in agriculture. 4. To apply the image interpretation technique in soil and crops classification.
27.	BSAC-509	<ol style="list-style-type: none"> 1. Establishment of consultancy farm 2. helping farmers in smart way
Department of Agriculture: VI Semester		
28.	BSAC-601	<ol style="list-style-type: none"> 1. To design soil and water conservation techniques in arid and semi-arid regions. 2. To modify and introduce new technology for increasing and sustaining yield in dry land areas 3. To select and apply different cropping systems for better productivity in water scarce areas. 4. To compare and analyze different drainage, land grading and storage of excess water in flood prone areas 5. To improve farmers income by creating multiple income sources by adopting different agro-forestry systems
29.	BSAC-602	<ol style="list-style-type: none"> 1. Development of knowledge on diagnosing different diseases of field and horticultural crops based on the symptoms expressed in the field. 2. Acquire the skill of collection and preservation of diseased specimens 3. Development management strategies to tackle the diseases in

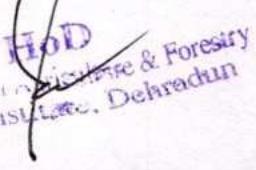

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		Kharif Season
30.	SAC-603	<ol style="list-style-type: none"> 1. Development of knowledge on diagnosing different diseases of field and horticultural crops based on the symptoms expressed in the field.. 2. Acquire the skill of collection and preservation of diseased specimens 3. Development management strategies to tackle the diseases in rabi Season
31.	BSAC-604	<ol style="list-style-type: none"> 1. Illustrate and apply the Post-harvest management of main horticultural crops 2. To compare interactions between the biological crop system post-harvest, the surrounding environment and the influencing technical factor 3. To design storage and cold chain management of crops 4. Analyze the processing and marketing of fruits and vegetables 5. To formulate future post-harvest challenges by adaptive knowledge
32.	BSAC-605	<ol style="list-style-type: none"> 1. Students will able to know the basic knowledge regarding the biology and basic concepts of apiculture 2. Students will know the techniques and tools of apiculture
33.	BSAC-606	<ol style="list-style-type: none"> 1. Development of knowledge on diagnosing different diseases of field and horticultural crops based on the symptoms expressed in the field. 2. Acquire the skill of collection and preservation of diseased specimens 3. Development management strategies to tackle the diseases in Kharif Season.
34.	BSAC-607	<ol style="list-style-type: none"> 1. Crop planning, raising field crops in multiple cropping

		<p>systems and use of cropping system</p> <ol style="list-style-type: none"> 2. Field preparation, seed treatment, nursery raising, sowing, nutrient management, water management, weed management and management of insect pests and diseases of crops harvesting, threshing, drying, winnowing, storage and marketing of produce . 3. creation of balance sheet including cost of cultivation, net returns 4. Use of new technologies and methods for the enhancement of crop production 5. Crop planning, raising field crops in multiple cropping systems and use of cropping system
35.	BSAC-608	<ol style="list-style-type: none"> 1. Realize the importance of eco-friendly fertilizers and pesticides 2. Demonstrate skills on culture and mass production of bio fertilizers and bio pesticides 3. Acquire sound knowledge on application of the bio fertilizers and bio pesticides for various crops. 4. Study the efficacy of bio fertilizers and bio pesticides in organic farming
36.	BSAC-609	<ol style="list-style-type: none"> 1. Understand & choose the fundamentals of management with reference to agribusiness. 2. To gain knowledge on agricultural marketing, challenges and prospects for improving agricultural marketing system 3. Promote basic understanding on the concepts of business environment and to analyze realization of impact of environment on business. 4. Understand & identify the importance of Rural Markets.
37.	BSAC-610	<ol style="list-style-type: none"> 1. To explain and analyze the fundamentals of nutrition. 2. To explain and analyze the physiological process of metabolism and understanding the role of food and nutrients


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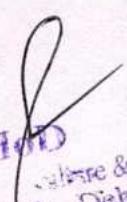
		<p>in health and disease.</p> <ol style="list-style-type: none"> 3. Make use of nutritional science to modify nutrient needs into menus for various groups of people. 4. Establish & use the link between food borne infections and hygiene 5. Develop a position on a public policy affecting nutrition and food issues and/or health care programs.
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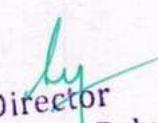
Department of Agriculture: VII Semester

38.	BSAW-701	<ol style="list-style-type: none"> 1. To promote professional skills and knowledge through meaningful hands on experience. 2. To build confidence and to work in project mode 3. To analyze enterprise management capabilities 4. To develop experimental learning with business mode within the students. 5. To develops competence, capability, capacity building, acquiring skills, expertise, and confidence to start their own enterprise and job creators instead of job seekers.
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Department of Agriculture: VIII Semester

39.	BSAL-801	<ol style="list-style-type: none"> 1. Team work and build competency in understanding real life situations 2. They can learn about management of different components, problem solving attitude. 3. Develop art of creative thinking, time management, art of listening, positive use of feedback, observation power, managing conflicts, working of local institutions, working with other organizations etc. 4. Students will acquaint with on-going extension and rural development programmes
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