Bhavan's Vivekananda College<br>of Science, Humanities and Commerce (Sainikpuri, Secunderbad, Telangana - 500094) Autonomous College - Affiliated to Osmania University Accredited with 'A' Grade by NAAC

## B.Sc. (MPCs)

## Program Outcomes

PO1 Knowledge: Acquire the knowledge with facts and figures related to Mathematics, Physics, Electronics, Computer Science and Statistics and understand the basic concepts, fundamental principles and scientific theories related to various scientific phenomena and their relevance in day-to-day life.

PO2 Skills: Acquire the skills in handling scientific instruments \& skills of observation and drawing logical inference from scientific experiments.

PO3 Modern Tool Usage: Apply appropriate techniques, skills, modern tools and IT tools to practice.

PO4 Creativity \& Analysis: Think creatively to propose novel ideas in explaining the evidence of data and provide new solutions to the problems and analyse che given scientific data systematically and have the ability to draw conclusion.

PO5 Communication: Communicate effectively on problems, issues and solutions with community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

P06 Ethics \& Environment: Apply ethical principles and commit to professional ethics and responsibilities and norms in research and the functional areas, understand the issues of environmental context and sustainable development.

PO7 Individual and Team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

P08 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio, economic and technological changes.

## Program Specific Outcomes

PSO1: Understand the basic concepts, develop problem solving skills, improve logical thinking and develop systematic approach to tackling situations

PSO2: Develop proficiency to apply basic concepts in problem solving and provide foundation to the advanced topics of Physics.

PSO3: Understand and analyse integrated frame work environment and to develop real time applications

## Course Outcomes

## Mathematics:

| Name of the Course | DIFFERENTIAL EQUATIONS AND GROUP <br> THEORY |
| :--- | :--- |
| Course Code | MT121 |
| CO 1 | Solve differential equations of first order \& first degree. |
| CO 2 | Apply concepts of differentiation to calculate problems on Total <br> differential equations, Simultaneous Total differential equations <br> and differential equations of first order but not first degree. |
| CO 3 | Determine various concepts in Group theory |
| CO 4 | Prove the concepts of Group theory |


| Name of the Course |  |
| :--- | :--- |
| Course Code | DIFFERENTIAL EQUATIONS AND <br> DIFFERENTIAL CALCULUS |
| CO1 | Use analytical methods to find solutions higher order linear <br> differential equations |
| CO 2 | Find solutions of non-homogenous higher order linear <br> differential equations. |
| CO 3 | Analyze and interpret concepts of differentiation, continuity <br> and derivability. |


| Name of the Course | RING THEORY\&PARTIAL DIFFERENTIAL <br> EQUATIONS |
| :--- | :--- |
| Course Code | MT321 |$|$| CO 1 | Determine various concepts in Ring theory. |
| :--- | :--- |
| CO 2 | Prove the concepts of Ring theory. |
| CO 3 | Solve linear and nonlinear partial differential equations of first <br> order. |
| CO 4 | Solve homogeneous and non-homogeneous linear partial <br> differential equations. |


| Name of the Course | Theory of Equations |
| :--- | :--- |
| Course Code | SEC321 |
| CO1 | By using the concepts learnt the students are expected to solve <br> some of the polynomial equation |


| Name of the Course | REAL ANALYSIS |
| :--- | :--- |
| Course Code | MT421 |
| CO1 | Determine various concepts in Sequences, Series, Sequences <br> functions, Series of functions and Integration. |
| CO2 | Determine various properties of Sequences, Series, Sequences <br> functions, Series of functions and Integration. |
| CO3 | Prove the concepts of Sequences, Series, Sequences functions, <br> Series of functions and Integration. |
| CO4 | Apply various tests for the convergence of Sequences, Series, <br> Sequences functions, Series of functions and Integrability of <br> functions. |


| Name of the Course | SEC LOGIC AND SETS |
| :--- | :--- |
| Course Code | SEC421 |
| CO1 | After the completion of the course students appreciate its <br> importance in the development of computer science |


| Name of the Course | LINEAR ALGEBRA |
| :--- | :--- | :--- |
| Course Code | MT521 |
| CO1 | After completion of this course students appreciate its <br> interdisciplinary nature. <br> Learn the concepts of basis and dimension of vector space, <br> express vector spaces in different dimensions, base concept of a <br> vector space and properties of vectors on the base. |
| CO2 | Find row and column space of a matrix, learn some functions <br> defined between vector spaces, learn required conditions for a <br> transformation in order to be a linear transformation, find <br> kernel of a linear transformation, learn the algebraic <br> operations between linear transformations, matrix <br> representation of a linear transformation. |
| CO3 | Learn how to calculate eigenvalues and eigenvectors of a linear <br> transformation, concepts of eigenvalues and eigenvectors of a <br> matrix. |
| CO4 | Students learn Concepts of inner product on vector spaces, <br> find the length of a vector in some vector spaces and the angle <br> between two vectors, explain that two vectors are orthogonal, <br> express that a set is orthogonal and orthonormal. |


| Name of the Course | VECTOR CALCULUS |
| :--- | :--- |
| Course Code | MT521A |
| CO1 | Students realize the way Vector Calculus is used to address <br> some of the problems of Physics. <br> After learning this course students will learn to define concepts <br> of point and vector and also learn to apply differences and <br> similarities in many fields of Science. |
| CO2 | Apply dot and cross product to determine angles between <br> vectors, orientation of axes, areas of triangles and <br> parallelograms in space, scalar and vector projections |
| CO3 | Calculate directional derivatives and gradients, and learn <br> concept of a conservative vector field, state and apply theorems <br> that give necessary and sufficient conditions for when a vector <br> field is conservative, definitions of curl and divergence of vector <br> field and describe application Green's Theorem, Gauss <br> Theorem and Stokes' Theorem and compute them. |
| CO4 | Learn applications of these theorems in Physics and <br> Engineering. |


| Name of the Course | SEC NUMBER THEORY |
| :--- | :--- |
| Course Code | SEC521 |
| CO1 | Students shall be able to understand and analyze the <br> properties of numbers in a broader prospect |


| Name of the Course | GE MATHEMATICAL APTITUDE -I |
| :--- | :--- |
| Course Code |  | GE521


| Name of the Course | NUMERICAL ANALYSIS |
| :--- | :--- | :--- |
| Course Code | MT621 |
| CO1 | After learning the course students realize the importance of the <br> subject in solving some problems of algebra and calculus, <br> understand the theoretical and practical aspects of the use of <br> numerical analysis. <br> Students will be equipped with the knowledge of finding the <br> roots of algebraic and transcendental equations. |
| CO2 | Students will be equipped with the knowledge of calculating the <br> interpolation, extrapolation values without actually finding the <br> function will learn to and evaluate a derivative at a value using <br> an appropriate numerical method. Proficient in implementing <br> numerical methods for a variety of multidisciplinary <br> applications. Establish the limitations, advantages and <br> disadvantages of numerical analysis. |
| CO3 | Derive numerical methods for interpolation, differentiation, <br> integration and also solve linear equations. |
| CO4 | Understand common numerical analysis and how they are <br> used to obtain approximate solutions. |


| Name of the Course | SOLID GEOMETRY |
| :--- | :--- | :--- |
| Course Code | MT621A |
| CO1 | After completion of this course students will be able to <br> understand the beautiful interplay between Algebra and Solid <br> Geometry. |
| CO 2 | Students will be able to analyse and differentiate the <br> differences in recognizing few types of conics. |
| CO 3 | Students will become familiar with different concepts in <br> Analytical Geometry and will able to solve different <br> properties of various conics. |


| Name of the Course | SEC GRAPH THEORY |
| :--- | :--- |
| Course Code | SEC621 |
| CO1 | Students can use the concepts of graphs and their properties <br> various fields of Science. |


| Name of the Course | GE MATHEMATICAL APTITUDE -II |
| :--- | :--- |
| Course Code | GE621 |
| CO1 | Students will be benefited by these concepts to crack <br> competitive examinations |

## Physics:

| Name of the Course | MECHANICS |
| :--- | :--- |
| Course Code | PH 123 |
| CO1 | Use the concepts of vector differentiation, integration and <br> remember impact of variation of mass in motion. |
| CO2 | Apply concepts of clastic collision to Rutherford experiment and <br> outline concepts of central forces. |
| CO3 | Remember various types of rigid body motion and different <br> mechanical properties. |
| CO4 | Outline the concept of relativity. |


| Name of the Course | WAVES AND OSCILLATIONS |
| :--- | :--- |
| Course Code | PH 223 |
| CO1 | To evaluate physical constants in simple oscillation and outline <br> combinations of simple vibrations. |
| CO 2 | To differentiate damped and forced vibrations. |
| CO 3 | To analyse different types of complex vibrations and describe <br> the properties of ultrasonics. |
| CO 4 | To determine the behaviour of vibrations in bars and strings. |


| Name of the Course | THERMODYNAMICS |
| :--- | :--- |
| Course Code | PH 323 |
| CO1 | To recognize the importance of the Laws of Thermodynamics |
| CO2 | To apply the concepts of Maxwell's relations in various <br> applications |
| CO3 | To differentiate between Transport phenomenon, classical - <br> quantum statistics |
| CO4 | To understand the Laws of Radiation |


| Name of the Course | BASIC INSTRUMENTATION SKILLS |
| :--- | :--- |
| Course Code | SE 323 |
| CO1 | Having completed this course, student should be <br> familiar to basic mechanical and electrical instruments |


| Name of the Course |  | OPTICS |
| :---: | :---: | :---: |
| Course Code |  | PH 423 |
| CO1 | To acquire knowledge of analyzing optical systems |  |
| CO2 | To use the acquired information about interference. |  |
| CO3 | Outline the concept of diffraction |  |
| CO4 | To get an insight to analyse polarized light |  |
| CO5 | To recognize the importance of laser |  |


| Name of the Course | RENEWABLE ENERGY AND ENERGY <br> HARVESTING |
| :--- | :--- |
| Course Code | SE 423 |
| COI | Having completed this course, student should understand <br> necessity of alternate energy sources and conservation of <br> conventional energy. |


| Name of the Course | ELECTRICITY AND MAGNETISM |
| :--- | :--- |
| Course Code | PH 523 |
| CO1 | To become cognizant of basics of Electrostatics |
| CO2 | To apply the concepts of Dielectrics in various applications |
| CO3 | To understand various concepts of Magnetism |
| CO4 | To recognize the importance of EMI |


| Name of the Course | Solid State Physics and Spectroscopy |
| :--- | :--- |
| Course Code | PH523A |
| CO1 | Having studied this unit the student acquires the basic <br> knowledge of dependence of various properties of materials on <br> the structural arrangement of the crystal constituting the <br> material. |
| CO 2 | Having done this unit the student gets familiarized with <br> different types of solids such as magnetic materials, <br> superconducting materials and nanomaterials. |
| CO3 | Having done this unit the student will be able to understand <br> the fundamentals of emission and absorption spectra and <br> analyze visible and basic alkali spectra and fine structure <br> spectrum. |
| CO4 | Having studied this unit the student will be able to understand <br> the different types of molecular spectra caused by the various <br> motions in a molecule. The student also gains the knowledge <br> about the probable interactions between matter and <br> electromagnetic radiation and their applications in <br> spectroscopy. |


| Name of the Course | Circuit Simulation using PSPICE |
| :--- | :--- |
| Course Code | SE 523 |
| CO1 | Students will learn the usage of virtual components and <br> instruments to make simulated measurements. They will <br> become proficient in designing and testing simple Digital and <br> Analog circuits. |


| Name of the Course | RENEWABLE <br> HARVESTING |
| :--- | :--- |
| Course Code | GE 523 |


| Name of the Course | MODERN PHYSICS |
| :--- | :--- |
| Course Code | PH 623 |
| CO1 | Understand the complementary nature of the wave and particle <br> properties of a material particle |
| CO 2 | Apply the Schrödinger's time independent equation to any <br> given system with a specified potential and hence find the <br> solution |
| CO 3 | Get an insight to basic nuclear structure, models and <br> transformations |
| $\mathrm{CO4}$ | Understand the decay of Radioactive particles such as a <br> particle in terms of quantum mechanical tunnelling |


| Name of the Course | ELECTRONICS |
| :--- | :--- |
| Course Code | PH 623A |
| CO1 | To apply the Kirchoff's laws to the electrical circuits 8 analyze <br> the circuits involving transients and resonance |
| CO2 | To use the acquired information about the operation of <br> semiconductor devices (Diodes 86 BJTs) and utilize their <br> concepts to design Rectifiers, Amplifiers 86 Oscillators. |
| CO3 | To recognize different number systems and solve the binary <br> arithmetic problems. |
| CO4 |  <br> combinational circuits. |


| Name of the Course | Boolean Algebra |
| :--- | :--- |
| Course Code | SE623 |
| CO1 | The students will be able to Use number systems to solve <br> problems. |
| CO2 | The students will be able to Design logic circuits and give their <br> truth tables. |
| C03 | The students will be able to reduce digital circuits using <br> Boolean algebra. |
| CO4 | The students will be able to Get familiarized with <br> Combinational Logic circuits |


| Name of the Course | BIOPHYSICS |
| :--- | :--- |
| Course Code | GE 623 |
| CO 1 | Students will get familiarize with basics of physics involved in <br> functioning of Eye and Ear |
| CO 2 | Students will be able to analyse the properties from the medical <br> images |

## Computer Science:

| Name of the Course | Programming in ' $\mathrm{C} '$ |
| :--- | :--- |
| Course Code | CS 125 |
| CO 1 | Write basic programs on their own using C. |
| CO 2 | Get equipped to use control statements, decision making and <br> looping statements. |
| CO 3 | Use the concepts of arrays, strings and functions <br> CO 4Use the concepts of structure, unions, pointers and pre- <br> processors |


| Name of the Course | Programming in 'C' Lab |
| :--- | :--- |
| Course Code | CS125P |


| Name of the Course | Programming in 'C++' |
| :--- | :--- | :--- |
| Course Code | CS 225 |
| CO | Write basic $\mathrm{C}++$ programs on their own |
| CO 2 | Get equipped to use the functions and object oriented <br> programming concepts |
| CO 3 | Use the concepts of inheritance and polymorphism |
| CO 4 | Use the concepts of templates and exception handling |


| Name of the Course | Programming in 'C++' Lab |
| :--- | :--- |
| Course Code | CS 225 P |
| CO1 | Developing real time applications using OOP's concepts |
| CO2 | Practical approach is implemented using Inheritance and <br> Polymorphism |


| Name of the Course | Data Structures |
| :--- | :--- | :--- |
| Course Code | CS325 |$|$| CO1 | Able to write different searching and sorting technique <br> programs |
| :--- | :--- |
| CO 2 | Able to write programs on stacks, queues, deques, priority <br> queues |
| CO3 | Able to write programs on linked list, doubly linked list |
| CO4 | Able to write programs on Binary Search Tree operations and <br> Tree Traversal techniques |


| Name of the Course | Data Structures Using C++ Lab |
| :--- | :--- |
| Course Code | CS325P |


| Name of the Course | PC Maintenance |
| :--- | :--- | :--- |
| Course Code | SE325A |
| CO1 | Students will acquire knowledge about motherboard <br> components \& hardware components of the PC and the basic <br> technologies used in networks |
| CO2 | Perform basic assembling and disassembling of the computer <br> and troubleshooting, upgrade of computer operating systems <br> and troubleshoot using system tools and diagnostic software. |


| Name of the Course | Database Management Systems |
| :--- | :--- |
| Course Code | CS425 |
| CO 1 | Acquire knowledge on database concepts. |
| CO 2 | Understanding the features of SQL |
| CO 3 | Understanding the concept of Database maintenance |
| CO 4 | Understand technical and management roles of database <br> administration \& data administrator |


| Name of the Course | Database Management Systems Lab |
| :--- | :--- |
| Course Code | CS425P |
| CO1 | Students will be able to interact with Database using SQL <br> (Lab). |
| CO2 | Students will be able to write simple SQL queries |


| Name of the Course | Libre Office Calc and Libre Office Base |
| :--- | :--- |
| Course Code | SE425A |\(\left|\begin{array}{l}CO1 knowledge about Spreadsheet formulas and functions \& Be <br>

familiarized about formatting, linking and protecting <br>

worksheets\end{array}\right|\)| Be able to prepare pivot tables, conditional formatting and data |
| :--- |
| validation in Spreadsheet and be able to learn Table creation, |
| Query creation, Form wizard and Report wizard in Base |


| Name of the Course | Programming in Java |
| :--- | :--- |
| Course Code | CS525 |


| Name of the Course | Programming in Java Lab |
| :--- | :--- |
| Course Code | CS525P |


| Name of the Course | Software Engineering (Elective-I) |
| :--- | :--- |
| Course Code | CS525A |
| CO1 | Students will be capable to analyze Software Engineering and <br> its specifications |
| CO 2 | Students will learn designing Architectural styles, object <br> oriented system analysis and its types of designs |
| CO3 | Students will be capable to implement Software development |
| CO4 | Students will learn Software testing and its quality |


| Name of the Course | Software Engineering Lab (Elective-I) |
| :--- | :--- | :--- |
| Course Code | CS525AP |
| CO1 | Students will be acquiring knowledge about <br> implementing tools and models in software <br> engineering |
| CO 2 | Students will be able to design software using <br> different types of UML models |


| Name of the Course | Operating Systems (Elective-II) |
| :--- | :--- | :--- |
| Course Code | CS525B |
| CO1 | At the end of the course students will be able to paraphrase the <br> basic concepts of Operating Systems and its Structure |
| CO2 | At the end of the course students will be able to summarize <br> the various Process Management Services of an OS and the <br> problems that could arise due to Synchronization and their <br> respective solutions suggested. |
| CO3 | At the end of the course students will be able to determine the <br> Process Scheduling Algorithm or the Deadlock Handling <br> Method to be used. |
| CO4 | At the end of the course students will be able to Discuss the <br> process of Memory and Virtual Memory Managements. |


| Name of the Course | Operating Systems Lab (Elective-II) |
| :--- | :--- |
| Course Code | CS525BP |


| Name of the Course | Python |
| :--- | :--- |
| Course Code | SE525A |
| CO1 | Acquire Knowledge on python programming features and <br> develop applications using conditional and looping statements |
| CO2 | Develop applications using functions, files and exception <br> handling, list and tuples |


| Name of the Course |  |
| :--- | :--- | Libre Office Calc (GE-I)


| Name of the Course | Basics of Python (GE-II) |
| :--- | :--- |
| Course Code | $\ldots$ |
| CO1 | Acquire Knowledge on python programming features and <br> develop applications using conditional statements. |
| CO 2 | Develop applications using looping statements and functions. |


| Name of the Course | Computer Networks |
| :--- | :--- | :--- |
| Course Code | CS625 |


| Name of the Course | Computer Networks Lab |
| :--- | :--- |
| Course Code | CS625P |
| CO1 | Students will be able to create basic messaging programs. |
| CO2 | Students will be able to design simple chatting applications |


| Name of the Course | Web Technologies (Elective-I) |
| :--- | :--- |
| Course Code | CS625A |
| CO1 | Students will be able to design static web pages |
| CO2 | Students can create web pages using CSS |
| CO3 | Students will be able to design dynamic web program |
| CO4 | Student will be more interaction with web browsers, web <br> servers and case study |


| Name of the Course | Web Technologies Lab (Elective-I) |
| :--- | :--- |
| Course Code | CS625AP |$|$| CO1 |  |
| :--- | :--- |
| sheets with me able to design static web pages using style |  |
| SO2 | Student will be able to design dynamic web pages using CSS, <br> HTML and Scripting language |


| Name of the Course | GUI Programming using JAVA |
| :--- | :--- |
| Course Code | SE625A |


| Name of the Course | NET |
| :--- | :--- |
| Course Code | SE625B |
| CO1 | Students are capable to understand .net platform, application <br> development basics |
| CO 2 | Capable to develop Windows form based application with <br> backend connectivity |


| Name of the Course | Multimedia (GE-I) |
| :--- | :--- |
| Course Code | $\ldots$ |
| CO1 | Students will be able to create, edit and modify simple image <br> files with various extensions. |
| CO 2 | Students will be able to implement filter and graphical effects <br> for selected page |


| Name of the Course | E-Commerce (GE-II) |
| :--- | :--- |
| Course Code | $\ldots+\cdots$ |
| CO1 | Student will be able to analyse the impact of E-Commerce on <br> Business Models and EDI |
| CO2 | Students will be able to analyze the Risks of Insecure Systems, <br> Risk Management and Online Payment System |

## Course Matrix

| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Differential Equations and Group theory |  |  |  |  |  |  | Corse Code : MT 121 |  |  |  |  |
| Semester: I |  |  |  |  |  |  | Year: 1 |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | POS | PO4 | P05 | POO | POT | P08 | PSOI | PSO2 | PSO3 |
| COL | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| CO 2 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| $\mathrm{CO3}$ | 3 | 2 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 3 |
| CO4 | 3 | 2 | 2 | 2 | 3. | 1 | 2 | 2 | 3 | 1 | 3 |
|  | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 1.75 | 3 |

Name of the Program: BSC MPCS

| Name of the Course: Differential Equations and Group theory |  |  |  |  |  |  | Corse Code: MT 121P |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester: 1 |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | P05 | P06 | P07 | POB | PSOI | PSO2 | PSO3 |
| COL | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| CO 2 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| CO3 | 3 | 2 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 3 |
| CO 4 | 3 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 | 1 | 3 |
|  | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 1 | 1.75 | 3 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: MECHANICS |  |  |  |  |  |  | Corse Code: PH 123 |  |  |  |  |
| Semester: 1 |  |  |  |  |  |  | Year: 1 |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | P03 | P04 | P05 | P06 | P07 | P08 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 2 | 1 | 3 | 0 | 1 | 0 | 0 | 3 | 3 | 1 |
| CO2 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 1 |
| co3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 1 |
| CO4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 1 |
| Avg | 3 | 2 | 1 | 1.67 |  | 1 |  | 1 | 3 | 3 | 1 |


| Name of the Program: B.Sc [CS] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Programming in ' $\mathrm{C}^{\prime}$ |  |  |  |  |  |  | Course Code: Cs125 |  |  |  |  |
| Semester: 1 |  |  |  |  |  |  | Year: 1 |  |  |  |  |
| Academic Year: 19.20 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | P05 | PO6 | PO 7 | PO8 | PSO1 | PSCO2 | P803 |
| CO1 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| CO2 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 3 |
| C03 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO4 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 3 |


| Name of the Program: B.Se (C8) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Programming in $\mathrm{C}^{\prime}$ Lab |  |  |  |  |  |  | Course Code: Cs125P |  |  |  |  |
| Semester: I |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs}_{3} / \mathrm{PO}_{5}$ | PO1 | poz | POJ | PO4 | P05 | РО6 | P07 | PO8 | PSOI | psoz | P303 |
| COI | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 3 |
| CO2 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 1 | 2 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Differential Equations and Differential Calculus |  |  |  |  |  |  | Corse Code: MT 221 |  |  |  |  |
| Semester: II |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | P03 | PO4 | P05 | P06 | P07 | P08 | PSOI | PSO2 | PSO3 |
| CO 1 | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| CO2 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| C03 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 3 |
| CO 4 | 3 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 3 |
|  | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 2.75 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Differential Equations and Differential Calculus |  |  |  |  |  |  | Corse Code: MT 221 P |  |  |  |  |
| Semester: II |  |  |  |  |  |  | Year: 1 |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Bateh: $2019-22$ |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specafic Outcomes |  |  |
| COs/POs | POI | PO2 | FOG | PO4 | PO5 | P06 | PO7 | P08 | PSO1 | PSO2 | PSOS |
| CO1 | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| $\mathrm{CO2}$ | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| CO3 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 3 |
| CO 4 | 3 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 3 |
|  | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 275 | 3 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Waves and oscillations |  |  |  |  |  |  | Corse Code: PH 223 |  |  |  |  |
| Semester: II |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | POI | PO2 | P03 | PO4 | POS | PO6 | PO7 | PO8 | PSO1 | PSO2 | Pso3 |
| COI | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 1 |
| CO2 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 1 |
| C03 | 3 | 2 | 0 | 3 | 0 | 0 | 1 | 2 | 3 | 3 | 1 |
| CO 4 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 3 | 1 |
| Avg | 3 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 3 | 1 |


| Name of the Program: B.Se (C8) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Programming in $\mathrm{C}++$ |  |  |  |  |  |  | Course Code: Cs225 |  |  |  |  |
| Semester: II |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomed |  |  |
| COs/POs | PO1 | FO2 | PO3 | PO4 | P05 | PO6 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 2 | 1 | 2 | 0 | 1 | 1 | 2 | 2 | 2 | 0 | 2 |
| CO 2 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 0 | 2 |
| CO3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 0 | 0 | 3 |
| CO4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 2 |


| Name of the Program: B.Se [CS] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Programming in C++ Lab |  |  |  |  |  |  | Course Code: CS225P |  |  |  |  |
| Semester: II |  |  |  |  |  |  | Year: I |  |  |  |  |
| Academic Year: 19-20 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | PO1 | PO2 | PO3 | P04 | P05 | P06 | P07 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 |
| CO2 | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 |

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| Name of the Program: MPCa |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: RING THEORY\&PARTIAL DIFFERENTIAL EQUATIONS |  |  |  |  |  |  | Corse Code: MT 321 |  |  |  |  |
| Semester III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year-2020-21 |  |  |  |  |  |  | Bateh 2019-22 |  |  |  |  |
|  | Program Outcames |  |  |  |  |  |  |  | Program Specific Outcones |  |  |
| COs/POs | PO 1 | PO2 | PO3 | PO4 | P05 | PO6 | PO7 | pos | PSOI | Psoa | pso3 |
| CO1 | 3 | 2 | 1 | 2 | 1 | - | 1 | 3 | 3 | 1 | 1 |
| CO2 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 3 | 3 | 1 | 3 |
| CO3 | 3 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 2 |
| CO4 | 3 | 2 | 1 | 2 | 1 | 1 | 3 | 3 | 3 | 3 | 2 |
|  | 3 | 2.25 | 1 | 2.25 | 1.25 | 1 | 2 | 3 | 3 | 1.75 | 2 |


| Name of the Program: MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: RING THEORY\&PARTIAL DIFFERENTIALEQUATIONS |  |  |  |  |  |  | Corse Code: MT 321P |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateh: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | Pos | Ро́ | PO7 | POB | PSOL | PSO2 | PSO3 |
| COI | 3 | 2 | 1 | 2 | 1 | 0 | 1 | 3 | 3 | 1 | 1 |
| CO 2 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 3 | 3 | 1 | 3 |
| CO3 | 3 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 2 |
| CO4 | 3 | 2 | 1 | 2 | 1 | 1 | 3 | 3 | 3 | 3 | 2 |
|  | 3 | 2.25 | 1 | 2.25 | 1.25 | 1 | 2 | 3 | 3 | 1.75 | 2 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: THEORY OF EQUATIONS |  |  |  |  |  |  | Corse Code: SEC 321 |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Yean: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Specific Outcomes |  |
| COs/POs | PO1 | PO2 | POS | PO4 | P05 | PO6 | POT | PO8 | PSO1 | PSO2 | PSO3 |
| COH | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 3 |


| Name of the Program: B Se MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: THERMODYNAMICS |  |  |  |  |  |  | Corse Code: PH 323 |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateht 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | P02 | PO3 | POA | pos | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 3 | 0 |
| CO2 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 3 | 2 |
| CO3 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 3 | 0 |
| CO 4 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 3 | 0 |
| Avg | 3 | 0 | 0 | 1.75 | 1 | 0 | 0 | 1 | 3 | 3 | 2 |


| Name of the Programt B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Courses BASIC INSTRUMENTATION SKILLS |  |  |  |  |  |  | $\begin{array}{\|l} \hline \text { Corse Code: SE } \\ 323 \\ \hline \end{array}$ |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomea |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | POO | PO4 | $\begin{gathered} \hline \mathrm{PO} \\ 5 \end{gathered}$ | $\begin{gathered} \hline P O \\ 6 \end{gathered}$ | PO7 | P08 | PSOI | PSO2 | PSO3 |
| COL | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 2 | 3 | 3 | 1 |
| Avg | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 2 | 3 | 3 | 1 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Data Structures |  |  |  |  |  |  | Course Code: C8325 |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specilic Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | Po5 | P06 | PO 7 | PO8 | PSO1 | PSO2. | PSO3 |
| COI | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 |
| CO 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 |
| CO3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 |
| CO4 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Data Struetures Using C ++ Lab |  |  |  |  |  |  | Course Code: CS325P |  |  |  |  |
| Semester: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Specific Outcomes |  |
| $\mathrm{COs} / \mathrm{POs}$ | PO1 | PO2 | P03 | PO4 | POS | P06 | P07 | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| $\mathrm{CO2}$ | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |

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| Name of the Program: B,Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: PC Maintenance |  |  |  |  |  |  | Course Code: SE325A |  |  |  |  |
| Semeater: III |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | POI | PO2 | PO3 | PO4 | POS | PO6 | PO7 | POB | PSO1 | PSO2 | P903 |
| COI | 3 | 2 | 3 | 3 | 2 | 1 | 2 | 3 | 0 | 2 | 3 |
| $\mathrm{CO2}$ | 3 | 3 | 2 | 3 | 2 | 1 | 2 | 3 | 0 | 2 | 3 |

## Name of the Program: MPCs

| Name of the Courset REAL ANALYSIS |  |  |  |  |  |  | Corse CodetMT421 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs}^{2} \mathrm{PO} 5$ | POI | PO2 | P03 | PO4 | POS | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |
| $\mathrm{CO2}$ | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 3 |
| CO4 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
|  | 3 | 1 | 1 | 1.75 | 1 | 1.5 | 1.75 | 3 | 3 | 1.75 | 1.75 |


| Name of the Program: MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: REAL ANALYSIS |  |  |  |  |  |  | Corse Code:MT421P |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: 11 |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomen |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO 2 | PO3 | P04 | POS | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |
| CO 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 3 |
| CO4 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
|  | 3 | 1 | 1 | 1.75 | 1 | 1.5 | 1.75 | 3 | 3 | 1.75 | 1.75 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: LOGIC AND SETS |  |  |  |  |  |  | Corse Code: SEC 421 |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcames |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | FO 2 | P03 | PO4 | P05 | P06 | POT | P08 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 3 |

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| Name of the Program: B Se MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: OPTICS |  |  |  |  |  |  | Corse Code: PH 423 |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomen |  |  |  |  |  |  |  | Program Specific Cutcomes |  |  |
| CO8/POs | POL | PO2 | PO3 | PO4 | PO5 | 円06 | 507 | P08 | PSO1 | PSO2 | PSO3 |
| CO 1 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| CO2 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| CO3 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| CO4 | 3 | 2 | 9 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| COS | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| Avg | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: RENEWABLE ENERGY AND ENERGY HARVESTING |  |  |  |  |  |  | Corse Code: SE 423 |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO 2 | Po3 | PO4 | POS | P06 | PO7 | P08 | PSOI | PSO2 | PSOP |
| COI | 3 | 0 | 1 | 1 | 3 | 2. | 0 | 2 | 3 | 3 | 0 |
| Avg | 3 | 0 | 1 | 1 | 3 | 2 | 0 | 2 | 3 | 3 | 0 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Database Management Systems |  |  |  |  | Course Code: CS425 |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | PO5 | P06 | P07 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 2 | 1 | 3 | 2 | 2 | 3 | 3 | 1 | 1 | 3 |
| CO 2 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 1 | 3 |
| CO 3 | 3 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 3 |
| CO 4 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 3 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Database Management Systems Lab |  |  |  |  | Course Code: CS425P |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: 11 |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateh: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | PO1 | P02 | P03 | P04 | POS | P06 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 3 |
| CO 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 3 |


| Name of the Program: B.Se (C8) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Libre Office Cale and Libre Office Base |  |  |  |  |  |  | Course Code: SE425A |  |  |  |  |
| Semester: IV |  |  |  |  |  |  | Year: II |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{PO}_{3}$ | PO1 | PO2 | PO3 | PO4 | P05 | P06 | PO7 | PO8 | PSOI | Pso2 | Ps03 |
| COI | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |
| coz | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |


| Name of the Program: MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: LINEAR ALGEBRA |  |  |  |  |  |  | Corse Code:MT521 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Yeart 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO 2 | PO3 | PO4 | POS | PO6 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 3 | 1 | 3 |
| CO 2 | 3 | 2 | 1 | 2 | 1 | 0 | 2 | 3 | 3 | 2 | 3 |
| CO3 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| CO4 | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 3 | 1 | 2 |
|  | 3 | 1.75 | 1.25 | 1.5 | 1 | 1 | 1.5 | 3 | 3 | 1.5 | 2.75 |

Name of the Program: MPCs

| Name of the Course: Linear algebra |  |  |  |  |  |  | Corse Code:MT521P |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester: V |  |  |  |  |  |  | Year III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outromes |  |  |  |  |  |  |  | Program Sperific Outcomes |  |  |
| COs/POs | POI | PO2 | POO | PO4 | PO5 | P06 | PO7 | PO8 | Psol | PSO2 | pso3 |
| COL | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 3 | 1 | 3 |
| CO 2 | 3 | 2 | 1 | 2 | 1 | 0 | 2 | 3 | 3 | 2 | 3 |
| co3 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| CO 4 | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 3 | 1 | 2 |
|  | 3 | 1.75 | 1.25 | 1.5 | 1 | 1 | 1.5 | 3 | 3 | 1.5 | 2.75 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wame of the Course: VECTORS CALCULUS |  |  |  |  |  |  | Corse Code:MTS21 A |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Yeart 2021-22 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | P03 | PO4 | P05 | P06 | PO7 | PO8 | PSOI | PSO2 | PSO3 |
| COI | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 3 |
| CO 2 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| CO3 | 3 | 1 | 1 | 1 | 1 | t | 1 | 2 | 3 | 2 | 3 |
| CO4 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
|  | 3 | 1.5 | 1.5 | 1.75 | 1.25 | 1.25 | 15 | 2 | 3 | 2.5 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: VECTORS CALCULUS |  |  |  |  |  |  | Corse Code:MT521 AP |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO 3 | PO4 | PO5 | PO6 | PO7 | PO8 | PSOL | PSO2 | PSCO |
| col | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 3 |
| CO2 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 |
| COS | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 3 |
| $\mathrm{CO4}$ | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
|  | 3 | 1.5 | 1.5 | 1.75 | 1.25 | 1.25 | 1.5 | 2 | 3 | 2.5 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: NUMBER THEORY |  |  |  |  |  |  | Corse Code: SEC 521 |  |  |  |  |
| Semeater: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | P05 | PO6 | PO 7 | PO8 | PSO1 | PSO2 | PSO3 |
| CO 1 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 1 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: GENERIC ELECTIVE - I |  |  |  |  |  |  | Corse Code: GE 521 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | P03 | PO4 | P05 | P06 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 2 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | 1 | 3 |

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| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: ELECTRICITY AND MAGNETISM |  |  |  |  |  |  | Corae Code: PH 523 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Pragram Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | POI | PO 2 | PO3 | P04 | POS | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COL | 3 | 0 | 0 | 1 | 0 | t | 0 | 1 | 3 | 3 | 0 |
| CO2 | 3 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 3 | 0 |
| CO3 | 3 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 3 | 0 |
| CO4 | 3 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 3 | 3 | 0 |
| Avg | 3 | 1.666667 | 0 | 1 | 0 | 1 | 0 | 1.333333 | 3 | 3 | 0 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Solid State Physies and Spectroscopy |  |  |  |  |  |  | Corse Code: PHS23A |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Progran Outcomes |  |  |  |  |  |  |  |  | Program Specific Outcomes |  |
| COs/POs | PO1 | PO2 | POS | PO 4 | POS | PO6 | PO7 | PO8 | PSO1 | PSO2 | Ps03 |
| COI | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| CO2 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| C03 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| CO4 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |


| Name of the Program: B Se MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Cirenit Simulation using PSPICE |  |  |  |  |  |  | Corse Code: SE 523 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Cutcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POH | PO2 | POO | PO4 | PO5 | P06 | PO7 | P08 | PSSI | PSO2 | PSO3 |
| COI | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| Avg | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |


| Name of the Program: B Se MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: RENEWABLE ENERGY AND ENERGY HARVESTiNG |  |  |  |  |  |  | Corse Code: GE523 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2020-21 |  |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{PO}{ }_{3}$ | POI | PO2 | PCO | PO4 | POS | P06 | PO7 | POB | PSOI | PSO2 | PSO3 |
| COI | 3 | 0 | 1 | $t$ | 3 | 2 | $\bigcirc$ | 2 | 3 | 3 | 0 |

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| Name of the Program: B.Se [C8] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wame of the Course: |  | Programming in Java |  |  |  |  | Course Code: C8525 |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | PO5 | P06 | PO7 | P08 | PSOt | PSO2 | PSO3 |
| CO 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 |
| CO 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| CO 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| CO4 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 3 |

Name of the Program: B.Se (CS)

| Name of the Course: |  | Programming in Java Lab |  |  |  |  | Course Code: Cs525P |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Progrum Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO 2 | PO3 | PO4 | PO5 | P06 | P07 | P08 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| $\mathrm{CO2}$ | 3 | 3 | 2 | 3. | 2 | 2 | 2 | 2 | 2 | 1 | 3 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Operating Systems (Elective-II) |  |  |  |  | Course Code: Cs525A |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Specific Outcomes |  |
| COs/POs | POI | P02 | PO3 | POA | P05 | P06 | PO7 | P08 | PSOI | PSO2 | PSO3 |
| COI | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | $\bigcirc$ | 1 | 2 |
| CO2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 3 |
| C03 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 |
| CO4 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 2 |


| Name of the Program: B.Se (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Operating Systems Lab (Elective-II) |  |  |  |  | Course Code: CS525AP |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academie Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | P01 | PD2 | PO3 | PO 4 | P05 | P06 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 2 |
| CO 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 0 | 2 |

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| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Python |  |  |  |  |  |  | Course Code: SE525A |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcames |  |  |
| COs/POs | POI | PO 2 | PO3 | PO4 | POS | P06 | POZ | PO8 | PSOI | $\mathrm{PSO}_{2}$ | P803 |
| COI | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
|  | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Libre Office Cale (GE - 1) |  |  |  |  |  |  | Course Code: |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcumes |  |  |
| COs/POs | P01 | PO2 | P03 | P04 | POS | PO6 | POT | P08 | PSO1 | PSO2 | PSO3 |
| COH | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |
| C02 | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |


| Name of the Program: B. Se (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  |  | Basics of Python (GE-II) |  |  |  | Course Code: |  |  |  |  |
| Semester: V |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Specific Outcomes |  |
| COs/POs | PO1 | PO2 | POI | PO4 | pos | 106 | PO7 | P08 | PSOI | PSO2 | PSO3 |
| COL | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: NUMERICAL ANALYSIS |  |  |  |  |  | Corse Code: MT 621 |  |  |  |  |
| Semester: VI |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  | Bateh: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  | Program Spectic Outcomes |  |  |
| COs/POs | PO2 | PO3 | PO4 | P05 | P06 | PO7 | PO8 | PSO1. | PSO2 | PSO3 |
| COI | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 3 |
| CO2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| C03 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| CO 4 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
|  | 2 | 1.5 | 1.75 | 1.25 | 1.25 | 2 | 2 | 3 | 3 | 3 |

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| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Numerical analysis |  |  |  |  |  |  | Course Code: MT 621 P |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO | PO 2 | PO3 | PO4 | POS | PO6 | PO7 | PO8 | PSOI | PSO2 | PS03 |
| COI | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 3 |
| CO 2 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| CO3 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| CO 4 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
|  | 3 | 2 | 1.5 | 1.75 | 1.25 | 1.25 | 2 | 2 | 3 | 3 | 3 |


| Name of the Program: MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: SOLID GEOMETRY |  |  |  |  |  |  | Corse Code:MT621/A |  |  |  |  |
| Semester: V1 |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO 2 | P03 | PO4 | PO5 | P06 | PO7 | PO8 | PSOI | PSO2 | PSO3 |
| COL | 3 | 1 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2 | 2 |
| CO 2 | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | 2 |
| CO 3 | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2 | 2 |
|  | 3 | 1.67 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2.34 | 2 |


| Name of the Program: MPCs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: SOLID GEOMETRY |  |  |  |  |  |  | Corse Code:MT621/AP |  |  |  |  |
| Semester: V1 |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Yean: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | P03 | POA | PO5 | PO\% | PO7 | POS | PSO1 | PSO2 | PSO3 |
| CO 1 | 3 | 1 | 1 | 3 | I | 1 | 2 | 3 | 3 | 2 | 2 |
| $\mathrm{CO2}$ | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | 2 |
| CO3 | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2 | 2 |
|  | 3 | 1.67 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2.34 | 2 |


| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: GRAPH THEORY |  |  |  |  |  |  | Corse Code: SEC 621 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Specilic Outcomes |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | POS | P06 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 3 |

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| Name of the Program: BSC MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Cousse: GENERIC ELECTIVE -II |  |  |  |  |  |  | Corse Code: GE 621 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO 2 | PO 3 | PO 4 | POS | PO6 | PO7 | FO8 | PSO1 | PSO2 | P903 |
| COL | 3 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 3 | 1 | 3 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: MODERN PHYSICS |  |  |  |  |  |  | Corse Code: PH 623 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Bateh: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  |  | Program Sperafic Outcomes |  |
| $\cos / \mathrm{PO} \mathrm{S}_{4}$ | PO1 | PO2 | PO3 | PO4 | POS | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| $\mathrm{CO2}$ | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| CO 3 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 3 | 0 |
| COH | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| Avg | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1.25 | 3 | 3 | 0 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: ELECTRONICS |  |  |  |  |  |  | Corse Code: PH 623A |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcemes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | P05 | PO6 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COH | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 3 | 0 |
| CO 2 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 3 | 0 |
| COS | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 3 | 0 |
| $\mathrm{CO4}$ | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 3 | 1 |
| Avg | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2.5 | 3 | 3 | 1 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Boolean Algebra |  |  |  |  |  |  | Corse Code: SE 623 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | POS | POG | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COI | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 0 |
| $\mathrm{CO2}$ | 3 | 2 | 1 | 0 | 0 | 0 | D | 1 | 3 | 3 | 1 |
| cos | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 0 |
| CO4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 1 |
| Avg | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 1 |


| Name of the Program: B Sc MPCS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: BIOPHYSICs |  |  |  |  |  |  | Corse Code: GE 623 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Ptogram Outcomes |  |  |  |  |  |  |  | Program Specifit Outcounes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | POI | PO 2 | PO3 | PO 4 | PO5 | PO6 | PO7 | POB | PSO1 | PSO2 | PSO3 |
| COL | 3 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 3 | 3 | 0 |
| CO 2 | 3 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 3 | 3 | 0 |


| Name of the Program: R.Se (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Computer Networks |  |  |  |  | Course Codet Cs625 |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO 2 | PO3 | PO4 | P05 | Р06 | PO7 | PO8 | PSOI | PSO2 | PSO3 |
| COL | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 3 |
| $\mathrm{CO2}$ | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 |
| CO 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 |
| CO 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |


| Name of the Program: B.Se (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Computer Networks Lab |  |  |  |  | Course Code: CS625P |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | PO3 | PO4 | PO5 | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 |
| CO2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 |


| Name of the Program: B.Se [CS] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: |  | Web Technologies (Elective-I) |  |  |  |  | Course Code: CS625A |  |  |  |  |
| Semester: V1 |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| CO8/POs | PO1 | PO2 | PO3 | PO 4 | POS | P06 | Pot | POS | PSO1 | PSO2 | PSO3 |
| $\mathrm{CO1}$ | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 3 | 0 | 0 | 2 |
| CO 2 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 3 | 0 | 0 | 3 |
| CO3 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 3 | 2 | 0 | 3 |
| CO4 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 0 | 0 | 3 |


| Name of the Program: B.Sc (C8) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Web Technologies Lab (Elective-1) |  |  |  |  |  |  | Course Coder Cs625AP |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | PO3 | PO4 | P05 | P06 | P07 | PO8 | PSO: | PSO2 | PS03 |
| CO1 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 3 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 3 |


| Name of the Program: B.Sc (C8) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: OUI Programming using Java |  |  |  |  |  |  | Course Code: SE625A |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019.22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | P02 | P03 | PO4 | P05 | PO6 | POT | P08 | PSOt | PSO2 | PSO3 |
| COL | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| $\mathrm{CO2}$ | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |

Name of the Program: B.Sc (CS)

| Name of the Course: .NET |  |  |  |  |  |  | Course Code: SE625日 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academile Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | PO1 | PO2 | 103 | PO4 | P05 | P06 | PO7 | P08 | PSO1 | PSO2 | PSO3 |
| COL | 1 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 0 | 2 |
| CO 2 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 0 | 3 |


| Name of the Program: B.Sc (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: Multimedia (GE - 1] |  |  |  |  |  |  | Course Code: GE625A |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Year: III |  |  |  |  |
| Academic Year: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| COs/POs | POI | PO2 | P03 | PO4 | PO5 | P06 | P07 | P08 | PSO1 | PSO2 | PSO3 |
| COI | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 3 |
| $\mathrm{CO2}$ | 2 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 1 | 1 | 3 |

## Bhavan's Vivekananda College

| Name of the Program: B.Se (CS) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of the Course: E-Commerce (GE-II) |  |  |  |  |  |  | Course Code: OF625B |  |  |  |  |
| Semester: VI |  |  |  |  |  |  | Yeari III |  |  |  |  |
| Academic Yean: 2021-22 |  |  |  |  |  |  | Batch: 2019-22 |  |  |  |  |
|  | Program Outcomes |  |  |  |  |  |  |  | Program Specific Outcomes |  |  |
| $\mathrm{COs} / \mathrm{POs}$ | PO1 | PO2 | P03 | PC14 | P05 | PQ6 | POT | PO8 | PSO1 | PSO2 | PSO3 |
| COI | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 1 |
| $\mathrm{CO2}$ | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 0 | 0 | 2 |

Program Targets

|  | Sem | Course | ProgramOutcom |  | PO3 | PO4 | P05 | P06 | P07 | PO8 | ProgramSpecificOutcome |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | PO1 | PO2 |  |  |  |  |  |  | PSO1 | PSO2 | PSO3 |
| 1 |  | En | 0 | 0 | 0 | 0.5 | 3 | 2.5 | 3 | 3. | 1.5 | 0 | 0 |
| 2 |  | St. | 0 | 0 | 0 | 0. | 3 | 1.4 | 2. | 2 | 0. | 0 | 0.1 |
| 3 |  | EVS | 1. | 1 | 1.5 | 2 | 1 | 3 | 2 | 2.5 | 2 | 0 | 2 |
| 4 |  | M | 3. | 1.5 | 1.5 | 2 | 2 | 1 | 1.5 | 2 | 3 | 3 | 3 |
| 5 |  | Mp | 3. | 1.5 | 1.5 | 2 | 2 | 1 | 1.5 | 2 | 3 | 3 | 3 |
| 6 |  | ph | 3. | 2 | 1. | 1.6666 | 0 | 1 | 0 | 1. | 3 | 3 | 1 |
| 7 | 1 | Php | 3. | 2 | 1. | 1.6666 | 0. | 1 | 0 | 1. | 3 | 3 | 1 |
| 5. | 1 | Cs | 2 | 2.5 | 2 | 2 | 1 | 1 | 1.5 | 2 | 2 | 1 | 3 |
| 9 |  | Csp | 3 | 3. | 2.5 | 2.5 | 1 | 2.5 | 2 | 3. | 1.5 | 2 | 3 |
| 10 | 2 | En | 0.5 | 0 | 0 | 0 | 3. | 2 | 3 | 3 | 1 | 0 | 0 |
| 11 |  | SL | 0.0 | 0 | 0 | 0 | 3. | 1.5 | 2 | 2. | 1.1 | 0 | 0 |
| 12 | 2 | OS | 0 | 0 | 0 | 1. | 2 | 2 | 2 | 2 | 2 | 0 | 2 |
| 13 | 2 | M | 3. | 1.5 | 1.5 | 2 | 2 | 1 | 1.5 | 2 | 3 | 3 | 3 |
| 14 | 2 | Mp | 3 | 1.5 | 1.5 | 2 | 2 | 1 | 1.5 | 2 | 3. | 3 | 3 |
| 15 | 2 | Pr | 3. | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 3. | 1 |
| 16 | 2 | Prip | 3 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 3. | 1 |
| 17 | 2 | Cs | 2 | 1.5 | 1. | 1. | 1. | 1 | 1 | 2.5 | 2 | 0 | 2 |
| 18 | 2 | Csp | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 |
| 19 | 3 | En | 0 | 0 | 0 | 0.8 | 3 | 2 | 3 | 3 | 1.2 | 0 | 0 |
| 20 | 3 | SL | 0 | 0 | 0 | 0 | 3. | 1 | 2 | 2 | 0. | 0 | 0.0 |
| 21 | 3 | M | 3 | 2 | 1. | 2. | 1 | 1 | 2 | 3 | 3 | 1.5 | 2 |
| 22 | 3 | Mp | 3. | 2 | 1. | 2 | 1. | 1 | 2 | 3. | 3 | 1.5 | 2 |
| 23 | 3 | SEC | 3. | 2 | 1 | 1. | 1 | 1 | 1 | 3. | 3 | 3 | 3 |
| 24 | 3 | Ph | 3. | 0 | 0 | 1. | 1. | 0 | 0 | 1 | 3 | 3 | 2 |
| 25 | 3 | Php | 3 | 0 | $\bigcirc$ | 1. | 1. | 0 | $1)$ | 1 | 3. | 3. | 2 |
| 26 | 3 | SEC | 3 | 3. | 2 | 2 | 0 | 0 | 0 | 2 | 3 | 3. | 1 |
| 27 | 3 | Cs | 3. | 3. | 3 | 3. | 2 | 2 | 2 | 2 | 3 | 0 | 3 |
| 28 |  | Csp | 3. | 3. | 3. | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| 29 |  | SEC | 3 | 2.5 | 2.5 | 3. | 2. | 1 | 2 | $3]$ | 0 | 2 | 3 |


| 30 | 4 | En | 0 | 0 | 0 | 0.2 | 3 | 2.2 | 3 | 3 | 0.0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31 | 4 | SL. | 0 | 0 | 0 | 0 | 3 | 1 | 2. | 2 | 0.6 | 0 | 0 |
| 32 | 4 | M | 3. | 1 | 1 | 1 | 1 | 1.5 | 1. | 3. | 3. | 1.5 | 1 |
| 33 | 4 | Mp | 3 | 1 | 1 | 1 | 1. | 1.5 | 1 | 3 | 3 | 1.5 | 1 |
| 34 | 4 | SEC | 3. | 1 | 1 | 2 | 1 | 1 | 1. | 3. | 3. | 2 | 3 |
| 35 | 4 | Ph | 3. | 2 | 0 | 0 | 1. | 0 | 1. | 1 | 3 | 3 | 0 |
| 36 | 4 | Phip | 3 | 2 | 0 | 0 | 1 | 0 | 1. | 1 | 3. | 3. | 0 |
| 37 | 4 | SEC | 3 | 0 | 1 | 1. | 3 | 2 | 0 | 2 | 3 | 3 | 0 |
| 38 | 4 | Cs | 3. | 2 | 1.5 | 2.5 | 1 | 2 | 2 | 2 | 1.5 | 1 | 3 |
| 39 | 4 | Csp | 3. | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 3 |
| 40 | 4 | SEC | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |
| 41 | 5 | M | 3. | 1 | 1. | 3.5 | 1. | 1 | 1.5 | 3 | 3. | 2 | 2 |
| 42 | 5 | Mp | 3 | 1 | 1 | 1.5 | 1 | 1 | 1.5 | 3 | 3 | 2 | 2 |
| 43 | 5 | M | 3 | 1.5 | 1.5 | 1 | 1 | 1 | 1.5 | 2 | 3. | 3. | 3 |
| 44 | 5 | Mp | 3. | 1.5 | 1.5 | 1 | 1. | 1 | 1.5 | 2 | 3. | 3. | 3 |
| 45 | 5 | SEC | 3 | 2 | 2 | 2 | 1. | 1 | 1. | 3. | 3 | 3. | 3 |
| 46 | 5 | Ph | 3. | 1.6666 | 0 | 1 | 0 | 1 | 0 | 1.3333 | 3 | 3 | 0 |
| 47 | 5 | Phip | 3 | 1.6666 | 0 | 1 | 0 | 1 | 0 | 1.3333 | 3 | 3 | 0 |
| 48 | 5 | Ph | 3 | 0 | 0. | 1 | 1 | 0 | 0 | 1. | 3 | 3 | 0 |
| 49 | 5 | Php | 3. | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| 50 | 5 | SEC | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3. | 3 | 2 |
| 51 | 5 | Cs | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.5 | 1 | 1 | 2 |
| 52 | 5 | Csp | 3. | 3 | 2 | 3. | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| 53 | 5 | Cs | 2.5 | 25 | 1 | 2 | 2 | 1.5 | 1. | 2.5 | 1.5 | 0 | 2 |
| 54 | 5 | Csp | 2 | 2.5 | 2 | 2 | 1.5 | 0 | 1.5 | 2.5 | 2 | 0 | 2 |
| 55 | 5 | SEC | 2.5 | 2 | 2.5 | 2.5 | 2 | 2 | 2 | 2.5 | 2 | 2 | 3 |
| 56 | 6 | M | 3 | 2 | 1.5 | 1. | 1. | 1. | 2 | 2 | 3. | 3. | 3 |
| 57 | 6 | Mp | 3. | 2 | 1.3333 | 1.6666 | 1.3333 | 1.3333 | 2 | 2.3333 | 3. | 3. | 3 |
| 58 | 6 | M | 3. | 1.6656 | 1 | 3. | 1 | 1. | 2 | 3. | 3 | 1 | 2 |
| 59 | 6 | Mp | 3 | 1.6066 | 1 | 3. | 1 | 1 | 2 | 3. | 3 | 1 | 2 |
| 60 | 6 | SEC | 3. | 1 | 2 | 2 | 1 | 1 | 1. | 2 | 3 | 3. | 3 |
| 61 | 6 | Pt | 3. | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| 62 | 6 | Php | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3. | 3 | 0 |
| 63 | 6 | Ph | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2.5 | 3. | 3 | 1 |
| 64 | 6 | Phy | 3. | 1 | 0 | D | 1 | 0 | 0 | 2.5 | 3 | 3 | 1 |
| 65 | 6 | SEC | 3. | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 1 |
| 66 | 6 | Cs | 3. | 2 | 2 | 1.5 | 1.5 | 1.5 | 1. | 1 | 2 | 1.5 | 2 |
| 67 | 6 | Csp | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 3 |
| 68 | 6 | Cs | 3. | 2. | 2 | 2 | 1 | 1 | 2.5 | 2 | 2 | 0 | 2 |
| 69 | 6 | Cesp | 3 | 3 | 3. | 3 | 3. | 2 | 3 | 3 | 1 | 0 | 3 |
| 70 | 6 | SEC | 2 | 2.5 | 3 | 2 | 2 | 0 | 2 | 2 | 1.5 | 1 | 2 |
| Total |  |  | 175.8 | 110.1 | 81.33 | 109. | 101.3 | 78.14 | 102 | 156 | 164.8 | 126 | 127 |
| ProgramOutcome Targets |  |  | 2.511 | 1.57 | 1.161 | 1.562 | 1.447 | 1.116 | 1.460 | 2.239 | 2.354 | 1.809 | 1.814 |

## Program Attainments

|  | Sem | Course | ProgramOuteom |  | PO3 | PO4 | POS | P06 | P07 | PO8 | ProgramSpecificOutcome |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | PO1 | PO2 |  |  |  |  |  |  | PSO1 | PSO2 | peos |
| 1. | 1 | En | 0.25 | 0 | 0 | 0.5 | 3 | 2.5 | 3 | 3 | 1.5 | 0 | 0 |
| 2 | 1 | SL | 0 | 0 | 0 | 0,37 | 3 | 1.437 | 2.87 | 2.75 | 0.37 | 0 | 0.187 |
| 3 | 1 | EVS | 1 | 1 | 1.5 | 2 | 1 | 3 | 2 | 2.5 | 2 | 0 | 2 |
| 4. | 1 | M | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 3 | 3 |
| 5 | 1 | Mp | 3 | 1.5 | 1.5 | 2 | 2.25 | 125 | 1.5 | 2.25 | 3. | 3 | 3 |
| 6 | 1 | ph | 2 | 1.33 | 0,6666 | 1.11 | 0 | 0.6666 | 0 | 0.6666 | 2 | 2 | 0.6666 |
| 7 | 1 | Php | 3 | 2 | 1 | 16666 | 0 | 1 | 0 | 1 | 3 | 3 | 1 |
| 8 | 1 | Cs | 2.75 | 2.5 | 2 | 2 | 1 | 1.67 | 1.5 | 2 | 2 | 1.67 | 3 |
| 9 | 1 | Csp | 3 | 3 | 2.5 | 2.5 | 1 | 2.5 | 2 | 3 | 1.5 | 2 | 3 |
| 10 | 2 | En | 0.5 | 0 | 0 | 0.25 | 3 | 2.75 | 3 | 3 | 1.25 | 0 | 0 |
| 11 | 2 | Si. | 0.062 | 0 | 0 | 0.25 | 3 | 1.5 | 2.87 | 2.75 | 1.187 | 0 | 0 |
| 12 | 2 | GS | 0 | 0 | 0 | t | 2 | 2 | 2 | 2 | 2 | 0 | 2 |
| 13 | 2 | M | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 3 | 3 |
| 14 | 2 | Mp | 3 | 1.5 | 1.5 | 2 | 2.25 | 1.25 | 1.5 | 2.25 | 3 | 3 | 3 |
| 15 | 2 | Ph | 3 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 3 | 1 |
| 16 | 2 | Php | 3 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 3 | 1 |
| 17 | 2 | Cs | 2.25 | 1.5 | 1.75 | 1.67 | 1 | 1 | 1.75 | 2.5 | 2 | 0 | 2.25 |
| 18 | 2 | Csp | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 |
| 19. | 3 | En | 0 | 0 | 0 | 0.8 | 3 | 2 | 3 | 3 | 12 | 0 | 0 |
| 20 | 3 | SL. | 0 | 0 | 0 | 0 | 3 | 1.25 | 2.87 | 2.75 | 0.37 | 0 | 0.062 |
| 21 | 3 | M | 3 | 2.25 | 1 | 2.25 | 1.25 | 1 | 2 | 3 | 3 | 1.5 | 2 |
| 22 | 3 | Mp | 3 | 2.25 | 1 | 2.25 | 1.25 | 1 | 2 | 3 | 3 | 1.5 | 2 |
| 23 | 3 | SEC | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| 24 | 3 | Ph | 3 | 0 | 0 | 1.75 | 1 | 0 | 0 | 1 | 3 | 3 | 2 |
| 25 | 3 | Php | 3 | 0 | 0 | 1.75 | 1 | 0 | 0 | 1 | 3 | 3 | 2 |
| 26 | 3 | SEC | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 2 | 3 | 3 | 1 |
| 27 | 3 | C8 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 0 | 3 |
| 28 | 3 | Csp | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| 29 | 3 | SEC | 3 | 2.5 | 2.5 | 3 | 2 | 1 | 2 | 3 | 0 | 2 | 3 |
| 30 | 4 | En | 0 | 0 | 0 | 0.2 | 3 | 2.2 | 3 | 3 | 0.6 | 0 | 0 |
| 31 | 4 | SL | 0 | 0 | 0 | 0.05 | 3 | 1.25 | 2.87 | 2.75 | 0.6 | 0 | 0 |
| 32 | 4 | M | 3 | 1 | 1 | 1.75 | 1 | 1.5 | 1.75 | 3 | 3 | 1.5 | 1.75 |
| 33 | 4 | Mp | 3 | 1 | 1 | 1.75 | 1 | 1.5 | 1.75 | 3 | 3 | 1.5 | 1.75 |
| 34 | 4 | SEC | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 3 |
| 35 | 4 | Ph | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| 36 | 4 | Php | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 | 0 |
| 37 | 4 | SEC | 3 | 0 | 1 | 1 | 3 | 2 | 0 | 2 | 3 | 3 | 0 |
| 38 | 4 | Cs | 3 | 2 | 1.5 | 2.5 | 1.75 | 2 | 2.75 | 2.75 | 1.5 | 1 | 3 |
| 39 | 4 | Csp | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 3 |
| 40 | 4 | SEC | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 3 |
| 41 | 5 | M | 3 | 1.75 | 1.25 | 1.5 | 1 | 1 | 1.5 | 3 | 3 | 2.75 | 2.75 |
| 42 | 5 | Mp | 3 | 1.75 | 1.25 | 1.5 | 1 | 1 | 1.5 | 3 | 3 | 2.75 | 2.75 |
| 43 | 5 | M | 3 | 1.5 | 1.5 | 1.75 | 1.25 | 1.25 | 1.5 | 2 | 3 | 3 | 3 |


| 44 | 5 | Mp | 3 | 1.5 | 1.5 | 1.75 | 1.25 | 1.25 | $1: 5$ | 2 | 3 | 3 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | 5 | SEC | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| 46 | 5 | Ph | 3 | 16666 | 0 | 1 | 0 | 1 | 0 | 1.3333 | 3 | 3 | 0 |
| 47 | 5 | Php | 3 | 1.6666 | 0 | 1 | 1 | 1 | 0 | 1.3333 | 3 | 3 | 0 |
| 48 | 5 | Ph | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3. | 3 | 0 |
| 49 | 5 | Php | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 0 |
| 50 | 8 | SEC | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| 51 | 5 | Cs | 2.75 | 2.75 | 2.75 | 2.75 | 2 | 2 | 2.25 | 2.5 | 1.75 | 1 | 2.75 |
| 52 | 5 | Csp | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 |
| 53 | 5 | Cs | 2.5 | 2.5 | 1.75 | 2.25 | 2.25 | 1.5 | 1.75 | 2.5 | 1.5 | 0 | 2.25 |
| 54 | 5 | Csp | 2 | 2.5 | 2 | 2 | 1.5 | 0 | 1.5 | 2.5 | 2 | 0 | 2 |
| 55 | 5 | SEC | 2.5 | 2 | 2.5 | 2.5 | 2 | 2 | 2 | 25 | 2 | 2 | 3 |
| 56 | 6 | M | 3 | 2 | 1.5 | 1.75 | 1.25 | 1.25 | 2 | 2 | 3 | 3 | 3 |
| 57 | 6 | Mp | 3 | 2 | 1.3333 | 1.6666 | 1.3333 | 1.3333 | 2 | 2.3333 | 3 | 3 | 3 |
| 58 | 6 | M | 3 | 1.6666 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 1 | 2 |
| 59 | 6 | Mp | 3 | 1.6666 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 1 | 2 |
| 60 | 6 | SEC | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 3 | 3 |
| 61 | 6 | Pti | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 125 | 3 | 3 | 0 |
| 62 | 6 | Php | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1.25 | 3 | 3 | 0 |
| 63 | 6 | Fti | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2.5 | 3 | 3 | 1 |
| 64 | 6 | Plap | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2.5 | 3 | 3 | 1 |
| 65 | 6 | SEC | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 1 |
| 66 | 6 | Cs | 3 | 2 | 2 | 1.5 | 1.5 | 1.5 | 1.25 | 1.75 | 2 | 1.5 | 2 |
| 67 | 6 | Cap | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 3 |
| 68. | 6 | Cs | 3 | 2.75 | 2.25 | 2.75 | 1.75 | 1 | 2.5 | 2.75 | 2 | 0 | 2.75 |
| 69 | 6 | Csp | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 3 |
| 70 |  | SEC | 2.25 | 2.5 | 3 | 2.75 | 2 | 0 | 2 | 2 | 1.5 | 1 | 2.75 |
| Total |  |  | 174.8 | 109.4 | 81 | 108.7 | 101.3 | 77.8 | 102 | 156.4 | 163.8 | 125 | 126.6 |
| ProgramOutcome |  |  | 2.497 | 1.564 | 1.157 | 1.554 | 1.447 | 1.111 | 1.460 | 2.234 | 2.340 | 1.795 | 1.809 |

Gaps

|  | Program Outcomes |  |  |  |  |  |  |  | Program Speelfic Outeomes |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | POI | PO2 | PO3 | PO4 | P05 | P06 | PO7 | PO8 | PSO1 | PSO2 | PSO3 |
| Program OutcomeTarge ts | $\begin{aligned} & 2.511 \\ & 607 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.573 \\ & 81 \end{aligned}$ | $\begin{aligned} & 1.161 \\ & 905 \end{aligned}$ | $\begin{aligned} & 1.562 \\ & 071 \end{aligned}$ | $\begin{aligned} & 1.447 \\ & 619 \end{aligned}$ | $\begin{aligned} & 1.116 \\ & 298 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.460 \\ & 714 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.239 \\ & 286 \\ & \hline \end{aligned}$ | 2.354821 | 1.809571 | 1.814286 |
| Program <br> OutcomeAttai <br> nments | $\begin{aligned} & 2.497 \\ & 321 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.564 \\ & 281 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.157 \\ & 143 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.554 \\ & 133 \end{aligned}$ | $\begin{aligned} & 1.447 \\ & 619 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.111 \\ & 536 \end{aligned}$ | $\begin{aligned} & 1,460 \\ & 714 \end{aligned}$ | $\begin{aligned} & 2.234 \\ & 524 \\ & \hline \end{aligned}$ | 2.340536 | 1.798286 | 1.809524 |
| Gap | $\begin{aligned} & 0.014 \\ & 286 \end{aligned}$ | $\begin{aligned} & 0.009 \\ & 529 \end{aligned}$ | $\begin{aligned} & 0.004 \\ & 762 \end{aligned}$ | $\begin{aligned} & 0.007 \\ & 938 \end{aligned}$ |  | $\begin{aligned} & 0.004 \\ & 762 \end{aligned}$ | 0 | $\begin{aligned} & 0.004 \\ & 762 \end{aligned}$ | 0.014286 | 0.014286 | 0.004:62 |

