MAR THOMA COLLEGE FOR WOMEN PERUMBAVOOR

PROGRAM OUTCOMES AND COURSE OUTCOMES

2017 – 2022

PROGRAMME OUTCOMES

PO1	Apply domain basedknowledgetoreallifesituations.
PO2	Acquirestrongcommunicationskillstofunctioneffectivelyindiversesocialatmosphere.
PO3	Adoptenvironmentalvaluestoenablesustainablelivingintheworld.

COURSEOFFERED

B.Sc.Zoology-ModelI

PROGRAMMESPECIFICOUTCOMES

PSO1	UnderstandingbasicconceptsinBiology.
PSO2	Acquireskillsinbiologicalinstrumentationforresearchandappliedscience.
PSO3	Incorporateenvironmentalandethicalpracticesinscientificstudy.

COURSEOUTCOMES

| CourseNameandCode	CourseOutcomeStatements
SEMESTER1. *ZY1CRT0I* GENERALPERSPECTIVESIN SCIENCE&PROTISTAN DIVERSITY	CO1:Tocreateanawarenessonthebasicphilosophyofscience, conceptsandscope CO2:Tounderstanddifferentlevelsofbiologicaldiversity throughthesystematicclassification CO3:ToimpartknowledgeonProtistandiversityandparasitic protists.
SEMESTER11. *ZY2CRT02* ANIMALDIVERSITY-NON CHORDATA	CO1:Tounderstandtheevolutionarysignificanceofinvertebrate fauna CO2:Tounderstanddifferentlevelsofbiologicaldiversity throughthesystematicclassificationofinvertebratefaunaC O3:Tofamiliarizetaxalevelidentificationofanimals
SEMESTER 1 &11 COMBINEDPRACTICALS *ZY2CRPT01*	CO1:Toenablestudentstoidentifyinsects,fishesandsnakes usingkeys. CO2:Tomakestudentsabletodrawscientificimagesoffauna. CO3:Todevelop dissection skills and understand ethical preactices.
SEMESTER111. *ZY3CRT03* ANIMAL DIVERSITY –CHORDATA	CO1:Toacquireknowledgeonthediversityofchordatesandtheir systematicposition CO2:Tomakethemawareoftheeconomicimportanceofsome classes. CO3:Tounderstandtheevolutionaryimportanceofselected chordategroups
SEMESTERIV. *ZY4CRT04* RESEARCH METHODOLOGY,BIOPHYSIC S AND BIOSTATISTICS	CO1 :To familiarise the learner the basic concepts of animalcollection, rearing/ preservation methods, scientific researchandits ethical practices. CO2.Todevelopstatisticalandanalyticalskills.researchc ommunicationandscientificdocumentation.

	CO3.Tocreateawarenessaboutthevariousinstrumentsusedinstudiesand their principle ofaction.
SEMESTER 1&11COMBINED PRACTICALSZY2CRP02	CO1:Toenhancethescientificdrawingskill. CO2: To familiarize students with the sample collection techniquesandapplybiodiversityestimationtools. CO3: To practice and develop problem solving skills in connectionwithbiostatistics.
SEMESTERV. ZY5CRT05 ENVIRONMENTALBIOLOGY ANDHUMANRIGHTS	CO1: To create a consciousness regarding Biodiversity, environmentalissues&conservationstrategies CO2:TodeveloptherealsenseofHumanrights–itsconcepts& manifestations CO3:Toteachthebasicconceptsoftoxicology,theirimpacton humanhealthandremedialmeasures
SEMESTERV. ZY5CRT06 CELL BIOLOGY AND GENETICS	CO1:Tounderstandthestructureandfunctionofthecelland organellesasthefundamentalsforunderstandingthefunctioningofallli vingorganisms. CO2:Toemphasizethecentralroleofgenesandtheir inheritanceinthelifeofallorganisms CO3:Todevelopcriticalthinking,skillandresearchaptitudesinba sicandappliedbiology.
SEMESTERV. ZY5CRT07 EVOLUTION, ETHOLOGY&ZOOGEOGRAPHY	CO1:Toacquireknowledgeabouttheevolutionaryhistoryof Life. CO2:Tostudythedistributionofanimalsonearth,itspattern,evolutiona ndcausativefactors. CO3:Toimpartbasicknowledgeonanimalbehaviouralpatternsandthe irrole.
SEMESTERV. ZY5CRT08 HUMAN PHYSIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY	CO1:Toexplainthebasicprinciplesofbiochemistryusefulfor biologicalstudiesforillustratingdifferentkindsoffood,their structure,functionandmetabolism. CO2:Toexplainvariousaspectsofphysiologicalactivitiesof animalsandtheirhormonalcontrolwithspecialreferenceto humans CO3:Toknowaboutthedifferentexperimentalmethodsand designsthatcanbeusedforfurtherstudyandresearch
SEMESTERV ZY5OPT02 PUBLIC HEALTH AND NUTRITION *(OPENCOURSE)*	CO1:Toinculcateageneralawarenessamongthestudents regardingtherealsenseofhealth. CO2: Tounderstandtheroleofbalanceddietinmaintaining health. CO3:Tomotivatethemtopracticeyogaandmeditationin day-to-daylife.
SEMESTERV ZY6CBT04 NUTRITION,HEALTHANDLIFESTYLE MANAGEMENT*(ELECTIVE)*	CO1:Todevelopanunderstandingabouthealthandlife stylemanagementanddiseases. CO2:Tounderstandprinciplesofnutritionanditsroleinhealth. CO3:Tofamiliarizethestudentsregardingfoodsafety,foodlaws & regulations.
SEMESTERVI. ZY6CRT09	CO1:Toidentifythevariousdevelopmentalstagesandthepossibl edefects in growth

DEVELOPMENTAL BIOLOGY	CO2:To understand the process of reproduction in man.CO3 : To develop an understanding about scientific developmentsinthefieldofDevelopmentalbiology.
SEMESTERVI. *ZY6CRT10* MICROBIOLOGYAND IMMUNOLOGY	CO 1: To explain the mechanism of immunity and the role ofhormones CO2:Todescribemicrobialtypes,contaminationsites,sterilizatio ntechniquesandtheecologicalsignificanceofmicrobes. CO3:Enumerateautoimmuneandimmunodeficiencydiseasesan dimmunology oftumorand organtransplantation
SEMESTERVI. *ZY6CRT11*BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY	CO1:Toexplainthestepsingeneticengineeringandanimal cell culture and ethical issues of transgenic animals.CO2:Toenumeratetheapplicationsofbiotechnolo gy CO3:Togainunderstandingaboutthebiologicaldatabasesandmolec ularvisualization softwares.
SEMESTERV1. *ZY6CRT12* OCCUPATIONALZOOLOGY	CO1:Tounderstandthescopeofoccupationalzoologyandtheprocessin volved. CO2:Giveawarenesstosocietyaboutneedforwastemanagement andorganicfarming. C03:Tolearnthedifferentresourcesavailableandtodevelopanattitudet owardssustainability.
SEMESTER V& V1 COMBINEDPRACTICALS *ZY6CRP03* ENVIRONMENTALBIOLOGYAN D HUMAN RIGHTS and CELLBIOLOGYANDGENETICS	CO1:Togainexpertiseinthebasicwaterqualityanalysis techniques. CO2: To experientially learn about mitosis and various blood cells.CO3: To identify the sexual dimorphisms of Drosophila and toidentifypresenceofbarrbodyexperimentally.
SEMESTER V&V1COMBINED PRACTICALS *ZY6CRP04* EVOLUTION,ETHOLOGY&ZOO GEOGRAPHY;HUMANPHYSIOL OGY, BIOCHEMISTRY,ANDENDOCRI NOLOGY	CO1:Identifyzoogeographyrealmsandendemicorganisms,aswellasc onnectinglinks. CO2:Tounderstandaboutdifferentanimalbehavioursandetholo gicaltechniques. CO3:Tobeabletoperformbasichematologicaltestsandqualitativeanaly sisofproteins,starch,lipidsandglucose.
SEMESTER V&V1 COMBINED PRACTICALS *ZY6CRP05* DEVELOPMENTALBIOLOGYAN DMICROBIOLOGYANDIMMUN OLOGY	CO1:Tobeabletoperformcandlingexperiment,gramstaining andbloodgrouping. CO2: To familiarize students with the techniques and tools inmicrobiology,reproductivebiologyandembryology. CO3:Todissectandidentifyanatomicaldifferencesbetweenmaleandf emalecockroach.
SEMESTER V& V1 COMBINED PRACTICALS *ZY6CRP06* BIOTECHNOLOGY,BIOINFORM ATICS AND MOLECULAR BIOLOGY;OCCUPATIONALZOO LOGY	CO1:Totestadulterationinhoney. CO2:Todownloadandcomeproteinsequenceandgenomesequences of given organism fromNCBI database and analysedata. CO3:Toidentifyeconomicallyimportantspeciesoffishes,earthworms, honeybees,shellfishes.
PROJECT	CO1:Toenhanceobservationskills,readingandwritingskills.
ZY6PRP01	CO2:Toenablestudentstocompile,sortandanalysedata. CO3: Toarriveat meaningful conclusion and develop rationalthinking
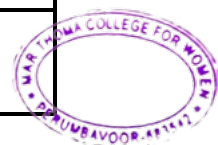
Course-B.ScBotanyModel1(Complementary)

PROGRAMMESPECIFICOUTCOMES

PSO1	UnderstandingbasicconceptsinBiology.
PSO2	Acquireskillsinbiologicalinstrumentationforresearchandappliedscience.
PSO3	Incorporateenvironmentalandethicalpracticesinscientificstudy.

COURSEOUTCOMES

CourseNameandCode	CourseOutcomeStatements
SEMESTER1. *B01CMT01- Cryptogams,Gymnosperms, andPlantPathology*	CO1:Todescribethecommonalgae,fungi,lichen,Bryophytes,pterido phytes,Gymnosperms. CO2:Toclassifyfloraonthebasisoftheirorigin. CO3 : To identify and understand the Common plant diseases toandsolveproblemsconcernedwithcommoncropplants.
SEMESTER11. *B02CMT02- PlantPhysiology*	CO1:To describe seed germination,mineral nutrition and vernalization CO2:Toillustratetheprocessofphotosynthesis,waterabsorption,mine ralnutrition,seedgerminationetc. CO3:Tounderstandtheroleofplanthormones.
SEMESTER1&11COMBINE DPRACTICALS *B02CMP02- Cryptogams,Gymnosperms,andP lantPathologyandPlantphysiolog y*	CO1:Tounderstandthevegetativereproductivelifecycleofmicro sporicplants. CO2:Togetfamiliarizedwithcommoncropplantdiseasesinnatureandr ecognizeitscausativeorganisms(microscopic). CO3:Tocreateanawarenessaboutplantphysiologicalprocessasaparto fourlifeexistence.
SEMESTER111. *B03CMT03 Angiosperm taxonomy and Economic Botany*	CO1:Torecognizetheplantsseeninourvicinitythrough morphologicalobservation. CO2:Totelltheeconomicimportanceofsomeclassesofplantsandplant products. CO3:Tofamiliarizewithangiospermfamilies.
SEMESTERIV. *B04CMT04 AnatomyandAppliedBotany*	CO1:Todescribetheinternalstructureofplants. CO2. To develop practitioner skills in plant propagation.CO3:Toenablestudentstoachieveplantimprov ementtechniques.
SEMESTER 111 & 1V COMBINEDPRACTICALS *B04CMP04*	CO1:Toenablestudentstoeasilyidentifyplantsthroughtheir morphologicalcharacters. CO2:Todo plantpropagation usingartificialpropagationtechniques. CO3:Tounderstandandobservetheleafandstemanatomy.

COURSEOFFERED

M.Sc.Zoology

PROGRAMMESPECIFICOUTCOMES

PSO1	UnderstandingtheconceptsinBiologicalSciences.
PSO2	AcquireskillsinBiologicalInstrumentationforresearchandappliedsciences.
PSO3	Incorporateenvironmentalandethicalpracticesinscientificstudy.

COURSEOUTCOMES

CourseNameandcode	Courseoutcomestatements
SEMESTERI ZL010101 - AnimalDiversity:Phylogeneticand TaxonomicApproaches	CO1-Understandthe classificationand phylogeny ofanimals CO2-Describe general characteristics, classification of invertebratesandvertebrates. CO3-Describing general taxonomic rules on animalclassification
SEMESTERI ZL010102 – Evolutionary BiologyandEthology	CO1-Understand the process of biological evolution.CO2-Analyzeevolution at molecular level. CO3-Understand animal behavior and response of animals todifferentinstincts.
SEMESTERI ZL010103-Biochemistry	CO1-Understand the structure, properties ,formation and functions ofvariousbiomolecules CO2-Explainmajor metabolicpathways. CO3-Understandthe major conceptsin Enzymology.
SEMESTERI ZL010104 – Biostatistics andResearchMethodology	CO1-Understand the methods of data collection, tabulation andpresentation. CO2-Apply various statistical tests and problem solvingmethodsfor data analysis. CO3-Acquireskillsinwritingscientificliteratures.
SEMESTERI ZL010105 – Evolutionary,Ethologicaland BiochemicalApproachesan dMethods	CO1-Understandthescientificclassificationandbiologicalandphylog eneticsignificances ofvarious life forms. CO2-Understandthebehaviorpatternofvariousorganismsbasedon observation studies. CO3-Demonstrate the biochemical aspects of tissues and fluids usingvarious tests.
SEMESTERII ZL010201–Field Ecology	CO-1-Understand the diversity of life forms in an ecosystemandtheirinter- relationships. CO2-Describethe concepts inpopulation ecology. CO3-Understandenvironmentalpollution andtheirmanagement.

SEMESTERII ZL010202 – DevelopmentalBiology	CO1-Understand the basic concepts of developmental biology.CO2-Explainthe genetics of development. CO3-Understand the application of developmental biology on humanwelfare.
SEMESTERII ZL010203 – GeneticsandBioinforma tics	CO1-Understandthe basicprinciples andmechanism of inheritance. CO2-Analyzetherole of genetics in evolution. CO3-Explorethe emergingfield of bioinformaticsand its tools.
SEMESTERII ZL010204 – MicrobiologyandBiotechn ology	CO1-Understand the basic structural aspects of microbes and theirinteractions. CO2-Explain the basic tools and techniques in biotechnology.CO3-Familiarize with public policy, biosafety and intellectualpropertyrights issues related to biotechnology
SEMESTERII ZL0102005 – Diversity ofLife :Ecological,Embryological ,HereditaryandMicrobial MethodsandApproaches	CO1-Analyzevariousqualityparametersofwaterandsoil. CO2- Understand various developmental stages, genetic problemsandgene mapping CO3- T o become skilled in using various bioinformatics tools andmicrobiologicalmethods.
SEMESTERIII ZL010301- AnimalPhysiology	CO1-Explain the structure and functions of various organs. CO2-Compare the functioning of various organ systems across theanimalfield. CO3-Understandthe concepts of endocrinology.
SEMESTERIII ZL010302- Cell andMolecularBiolo gy	CO1- Explain the structural and functional details of cells atmolecularlevel. CO2-Understand various signaling pathways that regulate differentphysiologicalprocesses. CO3-Understand the concepts of gene regulation andexpression,cellcycle and cancer.
SEMESTERIII ZL010303- Biophysics,Instrumentation andBiologicalTechniques	CO1-Understand the biological system and processes based onphysicalprinciples. CO2-Familiarize with the tools and techniques of variousinstruments available for biochemical and biophysical studies.CO3-Training the operational skills of different instrumentsrequiredin Zoology.
SEMESTERIII ZL010304-Immunology	CO1-Understand the basic components of immune system.CO2- Explaintheroleofimmunologyinorgantransplantation. CO3-Analyze the new developments in immunology and its role inhumanhealth and well-being
SEMESTERIII ZL010305 – Molecular,Physiological and ImmunologicalMethodsa ndApproachesinBioscien ces	CO1-Perform micrometric,microscopic andchromatographictechniques. CO2- Demonstrate various histochemical stainingmethods. CO3- Understand nerve and muscle physiology using virtualpracticalmethods.

SEMESTERIV ZL810401 – EnvironmentalScience: Concepts andApproaches (Elective)	CO1-Understand the components of environment and influence ofmanon environment. CO2-Equip various tools and techniques for the study ofenvironment. CO3-ExplorE new strategies for management and conservation ofenvironment.
SEMESTERIV ZL810402- EnvironmentalPollution and Toxicology(Elective)	CO1-Understand the types, sources and effects of various kinds ofpollution. CO2-Explain the tools and techniques for the control andmanagementof various kinds of pollutants. CO3-Analyze the effect of various toxicants and their monitoringmeasures.
SEMESTERIV ZL810403- EnvironmentalManageme ntand	CO1-Understand the basic principles of environmentalmanagement. CO2-Explainthe conceptandstepsofEnvironmentalImpact
Development(Elective)	Assessment. CO3-Understanding the concepts of sustainable development andprinciplesof disaster management.
SEMESTERIV ZL810404- Environmentscience	CO1- Test various soil ,water and air quality parameters usingstandardtests. CO2-Elucidate histopathologicalchanges intissues. CO3- Understand the biodiversity and ecological interactions in anearbyecosystem.
SEMESTERIV ZL010401-Project	CO1- Explore the methods and techniques in various fields ofBiology. CO2- Skilled in scientific paper writing. CO3-Pursuethe field ofresearch.
SEMESTERIV ZL010402-Viva	CO1- Developing thorough knowledge in Zoology.CO2-Updatetheknowledge infieldofBiology..

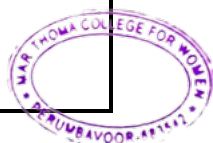# B.Sc.MATHEMATICSMODELI

UNDERGRADUATEPROGRAMMESPECIFICOU TCOMES

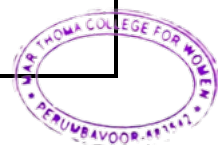|	
	Afterthecompletionoftheprogramme,thestudentswillbeableto:
PSO1	UtilizethemathematicaltoolstofacethemodernchallengesinMathematics.
PSO2	Acquireanalyticandproblemsolvingskillsforcareersandgraduateworks.
PSO3	ProvideaholisticandlogicalframeworkinspecificareasofMathematics.

B.Sc.COURSEOUTCOMES

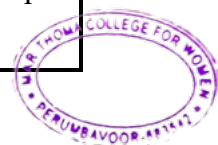| Sl. No.	Name of the Paper	Course Outcomes
		After the completion of the course, the students will be able:
1	**SEMESTER I** Core Course: MM1CRT01 Foundations of Mathematics	**CO1:** To explain the concepts of mathematical logic methods. **CO2:** To illustrate the idea of sets, functions and relations **CO3:** To solve polynomial equations using numerical methods.
2	**SEMESTER II** Core Course: MM2CRT02 Analytic Geometry ,Trigonometry and Differential Calculus	**CO1:** To interpret the ideas of conic sections, tangents and normal to a conic and their properties. **CO2:** .To apply the concepts of trigonometric functions, their properties and summation of trigonometric series. **CO3:** To solve problems involving successive differentiation and indeterminate forms.
3	**SEMESTER III** Core Course: MM3CRT03 Calculus	**CO1:** To determine series expansions of given functions and, curvature and related parameters of given curve. **CO2:** To calculate the partial derivatives, maxima and minima of functions and Lagrange multipliers for extremum problems. **CO3:** To solve the area and volume problems using multiple integrals.
4	**SEMESTER IV** Core Course: MM4CRT04 Vector Calculus, Theory of Numbers and Laplace transform	**CO1:** To examine the applications of vector valued functions and vector integration. **CO2 :** To apply the concept of congruence, Fermat's theorem, Wilson's theorem and Euler's phi function. **CO3:** To determine the Laplace transform of a given function.
5	**SEMESTER V** Core Course: MM5CRT05 Mathematical Analysis	**CO1:** To use the ideas of finite and infinite sets and the properties of set of real numbers. **CO2:** To detect the convergence and divergence of sequence and series. **CO3:** To apply the concept of limit of functions.
6	**SEMESTER V** Core Course: MM5CRT06 Differential Equations	**CO1 :** To explain the concepts of nature of solutions of differential equations, exact equations and homogeneous equations **CO2:** To determine the solutions of second order linear differential equations and first order partial differential equations using different methods. **CO3:** To compute the solutions of second order linear differential equations using the power series method.

7	**SEMESTERV** CoreCourse:MM5CRT07 AbstractAlgebra	**CO1:**Todemonstratedifferentgroupstructuresandthebasi cresults related to them. **CO2 :**To analyse the concepts of homomorphism ofgroups and factor groups using theorems and examples.**CO3:**Toexplaintheconceptsofidealsandfactorr ingsfromthe concepts of normalsubgroups and factor groups.
8	**SEMESTERV** Core Course: MM5CRT08HumanRightandM athematicsforEnvironmentalSt udies	**CO1:**Toexplaindifferentkindsofenvironmentalpoll utionand its causes. **CO2:**ToapplyknowledgeaboutFibonaccinumbersandGol denratio. **CO3:**Todescribevariousrulesprotectinghumanrights.
9	**SEMESTERV** OpenCourse:MM5OPT02 ApplicableMathematics	**CO1:**Toapplyshortcutmethodsforsolvingproblems.andimp rovemathematical skills **CO2:**Todescribethedefinitionsoftrigonometricratios. **CO3 :**To acquire the basic arithmetic skills involvingpercentage,average, timeand distanceand elementary algebra.
10	**SEMESTERVI** CoreCourse:MM6CRT09 RealAnalysis	**CO1:**Toexplainthemeaningofcontinuity,discontinuityand derivative of a function. **CO2:**ToacquiretheideaaboutRiemannintegrabilityand Riemann integration. **CO3:**Toexplainuniformconvergenceofaseries.
11	**SEMESTERVI** Core Course: MM6CRT10GraphTheoryan dMetricSpaces	**CO1:**Toexplainbasicconceptsofgraphs,directedgrap hs ,weighted graphs, trees, spanning trees, cutverticesand connectivity. **CO2:**ToexamineEulerianandHamiltoniangraphs. **CO3:**Toexplainthebasicconceptsofmetricspaces-
		opensets,closedsetsandCantorset,convergence, completenessandcontinuousmappinginmetricspaces.
12	**SEMESTERVI** CoreCourse:MM6CRT11 ComplexAnalysis	**CO1:**Toexplaintheconceptsoflimit,continuityofcom plexfunctions and analytic functions. **CO2:**Toapplytheconceptofcomplexintegrationandthec onvergenceofcomplexsequenceandseries. **CO3:**Todetectsingularpointsandresidues.
13	**SEMESTERVI** CoreCourse:MM6CRT12 LinearAlgebra	**CO1:**Toillustratethepropertiesofmatricesinsolvingsyste mof linear equations. **CO2:**Toillustratetheconceptsofvectorspacesandbasic results related to them. **CO3:**Todiscusslineartransformationandrelated conceptsusingmatrices.

14	**SEMESTERVI** ChoiceBasedCourse:MM6CBT01 OperationsResearch	**CO1:**Toapplylinearprogrammingproblemsolvingmethods and the concept of duality in real worldproblems. **CO2:**Tosolvetransportationandassignmentproblems. **CO3:**TodescribetheconceptofGametheory.
15	**SEMESTERVI** MM6PRT01:Project	**CO1:**Todemonstratetheirownwork. **CO2:**Toproduceamatureoralpresentationofanon-trivialmathematicaltopic. **CO3:**Toinvestigatetheirawarenessinrelationtothe widerresearchfield.
16	**SEMESTERI** Complementary Course:MM1CMT01 Partial Differentiation, Matrices,Trigonometry and NumericalMethods.	**CO1 :**To discuss the concept of partial derivatives. **CO2:**Topracticequestionstofindtherankofamatrixusing elementary transformations and solve linearequations. **CO3:**Tocomputesummationofinfiniteseries, solutionsofalgebraicandtranscendentalequations.
17	**SEMESTERII** Complementary Course:MM2CMT02 IntegralCalculusandDifferentialEquations	**CO1:**Toapplydefiniteintegralstofindvolumes,lengthofplane curvesand areaof surfacesof revolution. **CO2:**Tousemultipleintegralstofindvolumeofasolidand areaof bounded regions. **CO3:**Tosolvefirstorderdifferentialequationsand partialdifferentialequations.
18	**SEMESTERIII** Complementary Course:MM3CMT03 Vector Calculus, AnalyticGeometryandAbstractAlgebra	**CO1 :**To solve problems involving vector valuedfunctions, green's theorem, stokes theorem to integrate invectorfields. **CO2**:Toillustratetheideaaboutconicsections, polarcoordinatesand conics in polar coordinates. **CO3:**Tousetheconceptsofgroups,cyclicgroupsand homomorphism of groups.
19	**SEMESTERIV** Complementary Course:MM4CMT04 FourierSeries,LaplaceTransformand Complex Analysis	**CO1:**Todiscussperiodicfunctions,trigonometricseriesFourierseriesandpowerseries method. **CO2:**ToexplainLaplacetransforms. **CO3:**Todiscusstheconceptsofcomplexnumbersandanalyticfunctions.

STATISTICS

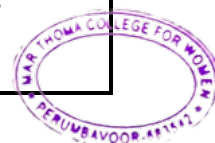|		
1	**SEMESTERI** Complementary Course:DescriptiveStatistics	**CO1:**Tounderstandthebasicknowledgeondatacollection **CO2:**Todiscussthedifferentdatasummarizingtools. **CO3:**Todiscussdifferenttypesofindexnumbersandthepropertysatisfiedbythegoodindex number.

2	**SEMESTERII** Complementary Course:ProbabilityTheory	**CO1:**Toexplaintheconceptofrandomvariableandthep robability distributions. **CO2:**Toanalysetheinterrelationbetweentwoormorephen omenawith the help of curve fitting,correlation –regressionanalysis. **CO3:** To develop critical thinking in theory ofprobabilityanditsapplicationsinreallifeproblems.
3	**SEMESTERIII** Complementary Course:DistributionThe ory	**CO1:**Tomakeabridgebetweentheelementarystat isticaltoolandprobability theory. **CO2:**Tounderstandthestandardstatisticaldistributionfoun dinstatisticalpracticeand itsproperties. **CO3:** To develop the knowledge on exact samplingdistributionwhichareessentialforstatisticalinfere nce.
4	**SEMESTERIV** Complementary Course:StatisticalInfere nce	**CO1:** To understand the notation of point and intervalestimation of the parametric models and their desirableproperties. **CO2:**Tounderstandtheproblemsthosearefacedintesti ng a hypothesis with reference to the errors indecisionmaking. **CO3:**ToapplythedifferenttestingtoolslikeZ-test,t-test, F-test, χ^2 distribution etc. to analyse the relevantreallife problems.

M.Sc.MATHEMATICS

POSTGRADUATEPROGRAMMESPECIFICOUTC OMES

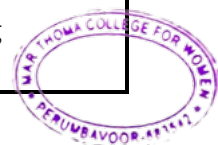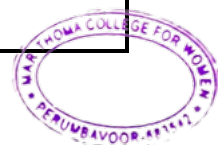|	
	Afterthecompletionoftheprogramme,thestudentswillbeableto:
PSO1	Evaluatehypothesis,theories,methodsandevidencewithintheir propercontexts.
PSO2	Usetheconceptsand theoriesofmathematicsand theirapplicationinthe realworldtoan advancedlevelinasystematicmanner.
PSO3	PrepareforresearchstudiesinMathematics&relatedfieldsandenhancecareerprospects ina huge array of fields.

M.Sc.CourseOutcomes

Sl.No	NameofthePaper	CourseOutcomes Afterthecompletionofthecourse,thestudentswillbeable:
1	**SEMESTERI** ME010101:AbstractAlgebra	**CO1:**Toanalyzefundamentalhomomorphismtheoremand group action on a set. **CO2 :**To apply isomorphism theorems and Sylowtheorems. **CO3:**Todemonstratetheknowledgeoffactorizationof polynomials over afield,ringhomomorphism,quotientrings,prime and maximalideals.
2	**SEMESTERI** ME010102:LinearAlgebra	**CO1 :**To illustrate basic concepts of vector spaces and thepropertiesof determinantfunction. **CO2:**Todifferentiatedifferentlineartransformations,their algebraandrepresentationoftransformationsbymatrices. **CO3:**Toimplementtheideasofcanonicalforms, characteristicvaluesandannihilating polynomials.
3	**SEMESTERI** ME010103:BasicTopology	**CO1:**Toanalysetheconceptoftopologicalspaces,baseandsubbase. **CO2:**Toapplytheconceptofcontinuity,quotientspacesand connectedness on different topologies. **CO3:**Todifferentiatelevelsofspacesbasedonaxioms.
4	**SEMESTERI** ME010104:RealAnalysis	**CO1:**Toexplaintheoremsassociatedwithboundedvariationand rectifiable curves. **CO2:**ToacquiretheideaaboutRiemann-Stieltjesintegralandthe concept of uniformconvergence. **CO3:**Toacquiretheideaaboutspecialfunctions.
5	**SEMESTERI** ME010105:GraphTheory	**CO1:**Todiscussaboutbasicconceptsofgraphtheory **CO2:**Tousetheapplicationoftreesineverydayproblems. **CO3:**ToPracticeproblemsonEulerianandHamiltonian graphs,graph coloring andplanarity of graph.
6	**SEMESTERII** ME010201:AdvancedAbstractAlgebra	**CO1 :**.To explain the properties of finite fields. **CO2 :**To apply the concepts of UFD, ED and fieldautomorphisms **CO3:**TodescribeGaloisgroupandGaloistheory.

7	**SEMESTERII** ME010202: AdvancedTopology	**CO1** :To explain Urysohn characterization of normality,Tietzecharacterizationofnormality,productsandco-products. **CO2:**Toanalyseembeddinglemma,Tychonoffembedding and metrization theorem. **CO3:**Todeveloptheideaofconvergenceofnets,compactnessand variations of compactness.
8	**SEMESTERII** ME010203:NumericalanalysiswithPython3	**CO1** :To develop basic python programming involvingsymbolicmathematical operations. **CO2** :To interpret the concepts of Gaussian elimination,interpolation, curve fitting and finding roots of equationsusingpython programme. **CO3:**Toillustratetheconceptofnumericalintegration using python.
9	**SEMESTERII** ME010204:ComplexAnalysis	**CO1:**Toexplainsphericalrepresentationofcomplexplaneand elementaryproperties of analyticfunctions. **CO2:**Toanalysepowerseriesrepresentationofanalyticfunctions. **CO3:**Toexaminetheconceptofsingularitiesand residues.
10	**SEMESTERII** ME010205:MeasureTheoryand Integration	**CO1:**Touseknowledgeabout Lebesguemeasureand Lebesguemeasurable functions. **CO2:**To describe general measurable space andmeasurablefunctions. **CO3:**Toapplyintegrationovergeneralmeasurablespace andproduct measure
11	**SEMESTERIII** ME010301: Advanced Complex Analysis	**CO1:**Toapplytheconceptofharmonicandsubharmonicfunctions. **CO2:**ToexplainWeierstrass'stheorem,Gammafunction,Hadamard'stheorem,Riemannzetafunctionandnormalfamilies. **CO3 :**Toillustrate Riemannmappingtheoremand Weierstrass'stheory.
12	**SEMESTERIII** ME010302: Partial DifferentialEquations	**CO1** :To explain PDEs of first order, second and higherorders. **CO2** :To apply various analytic methods for computingsolutionsof various PDEs. **CO3 :**To determine integral surfaces passing through acurve,characteristiccurvesofsecondorderPDEandcompatiblesystems. **CO4:**ToanalysebehaviorofsolutionsofPDEsusing techniqueofseparationofvariables.

13	**SEMESTERIII** ME010303:MultivariateCalculus and IntegralTransforms	**CO1:**Toacquiretheconceptsofintegraltransformsconvolutionsandmultivariabledifferentialcalculus.. **CO2:**Todiscussimplicitfunctionsandextremumproblems. **CO3:**Toexplainintegrationofdifferentialforms.
14	**SEMESTERIII** ME010304:FunctionalAnalysis	**CO1:**Toacquiretheconceptsofnormedspaces,propertiesofnormedspace,linearoperatorsonfinitedimensionalspacesand dualspace. **CO2 :**To illustrate inner product spaces and properties oforthonormalsequencesusingexamples andtheorems. **CO3:**TodemonstratedifferentformsofHahn-Banach Theorems.
15	**SEMESTER III** ME010305: OptimizationTechniques	**CO1:**Todeterminesolutionstolinearprogrammingproblems andintegerprogrammingproblemsusingdifferentmethods. **CO2 :**To analyse the concepts of flow and potential innetworksand goal programming. **CO3:**Todiscussdifferentmethodsforsolvingnon-linear programmingproblems.
16	**SEMESTERIV** ME010401:SpectralTheory	**CO1:**Todistinguishdifferentformsofconvergenceofoperatorsand open mapping theorem. **CO2:**ToapplytheconceptofBanachfixedpointtheoremandpropertiesofresolventandspectrum. **CO3:**Todiscusspropertiesofcompactlinearoperators,boundedselfadjointlinearoperators,positiveoperators andproperties of projections.
17	**SEMESTERIV** ME010402:AnalyticNumberTheory	**CO1:**Toapplythepropertiesofarithmeticalfunctionsforsolvingproblems. **CO2:**Toacquire theknowledge aboutthetheoryofprimenumbers. **CO3:**Toutilizetheconceptsofcongruences,Chineseremaindertheorem and Legendresymbol. **CO4:**ToimplementEuler'stheorem,Wilson'stheorem andMobiusinversionformula.
18	**SEMESTERIV** ME800401 (Elective):DifferentialGeometry	**CO1 :**To interpret the ideas of graphs and level sets,vectorfields,thetangentspaceandvectorfieldsonsurfacesand orientation. **CO2 :**To summarize the fundamentals of Gauss map,geodesicsand parallel transport. **CO3:**TodescribetheideasofWeingartenmap,curvatureofplanecurvesandlineintegrals,curvatureofsurfaces andparametrizedsurfaces.

19	**SEMESTERIV** ME800402 (Elective):AlgorithmicGraphTheory	**CO1:**Toimplementbasicconceptsofgraphsusingalgorithms. **CO2:**Toestablishthemax-flowmin-cutalgorithmandMenger'stheoremforfindingconnectivity. **CO3:**Toexaminealgorithmsforfindingmaximum matchinginbipartitegraphs,factorizationsandblock designs.
20	**SEMESTERIV** ME800403 (Elective):Combinatorics	**CO1:**Toapplytheconceptsofpermutation,combinationsproblems,pigeonholeprinciple and Ramsey numbers. **CO2:**Touseprinciplesofinclusionandexclusionforsolvingproblems. **CO3:**Tocomputegeneratingfunctionsandrecurrence relations.
21	**SEMESTERIV** ME010403&ME010104: DissertationandViva-voce	**CO1:**Todeducetheirargumentsinacomprehensibleandscholarlymanner. **CO2:**Todevelopthespiritofresearchintheirmind. **CO3:**Tovalidatescientificintegrity.

B.ScPHYSICS -MODEL II(APPLIEDELECTRONICS)

PROGRAMMESPECIFICOUTCOMES

PSO1	• Understand the basic concepts, fundamental principles andscientifictheoriesrelatedto scientificphenomena.
PSO2	• Analyze the physical problems and develop optimal solutionsusingtheory and program.
PSO3	• To develop skills in doing programming and practicalexperiments.

COURSE OUTCOMES

Course Name and Code	RSE OUTCOME STATEMENT
SEMESTER 1 *PH1CRT01* METHODOLOGY ANDPERSPECTIVE OF PHYSICS	CO1 :To understand the contributions of eminent physicists - Newton, Einstein, C. V. Raman, Edison in the development of physics in its historical and cultural context. CO2 :To apply the basic concepts of number system ,binary numbers and mathematical operations and to understand the different types of errors and analyse the data CO3 : To acquire the knowledge about the basic concepts of vector calculus.

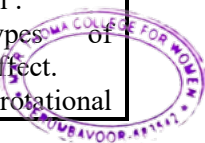|	
SEMESTER 2 *PH2CRT02* MECHANICS AND PROPERTIES OF MATTER	CO1 : To acquire the knowledge about oscillations, examples and applications. CO2: To apply the basic concepts of rotational mechanics to different physical systems. CO3 :To study the basic ideas of elasticity and apply the theory to practical systems
SEMESTER 3 *PH3CRT03* OPTICS ,LASERS AND FIBER OPTICS	CO1 : To develop basic knowledge of the physics behind interference, diffraction and polarization. CO2 : To Understand the principle of operation of laser and the light propagation in optical fibres. CO3 :Be able to outline the important applications of lasers and optical fibres in the modern society.
SEMESTER 4 *PH4CRT04* SEMICONDUCTOR PHYSICS	CO1 : Be able to understand the current-voltage characteristics of a P-N junction diode, Zener diode and bipolar junction transistor, their constructions using different circuit configurations and analyze its operations and working in different electronic circuits. CO2 : To understand the basic concepts of transistor , transistor biasing and amplification. CO3 : Be able to design and construct transistor amplifier, and evaluate its gain, input and output resistances, frequency response and bandwidth. CO4 : Help to identify types of modulation, and also understand the concept of Op amp.
SEMESTER 5 *PH5CRT05* ELECTRICITY AND LECTRODYNAMICS	CO1 : Be able to solve electrodynamics problems using the fundamental equations through advanced mathematical steps tools like vector calculus. CO2 : Study in depth the alternating current response of RC, LC, LR and LCR series circuits, which is essential in understanding the working of electronic circuits. CO3 : Be able to understand the concept of electromagnetic waves , and applications.
SEMESTER 5 *PH5CRT06* CLASSICAL AND QUANTUM MECHANICS	CO1: Acquire the knowledge about the concepts of Newtonian mechanics, Langrangian dynamics, Hamiltonian mechanics, Lorentz transformations . CO2 : understanding the limitations of classical physics , and the mathematical foundations of quantum mechanics. CO3 : Be able to solve the Schrödinger equations , Dual nature of particles , uncertainity principle etc.

SEMESTER 5 *PH5CRTO7* DIGITAL ELECTRONICS AND PROGRAMMING	CO1 : Understand different number systems as well as the arithmetic operations, digital codes, logic gates, Boolean laws, D' Morgan's theorem CO2 :Analyze, Design and implement combinational logic gate circuits. CO3 : Have deep knowledge in the C++ programming language.
SEMESTER 5 *PH5CRTO8* ENVIORNMENTALPHYSICS AND HUMAN RIGHTS	CO1 : To gain knowledge in various energy sources CO2 :To gain knowledge on environmental pollution CO3 : To understand the different environmental issues and the management
SEMESTER 5 OPEN COURSE *PH5OPT02* PHYSICS IN DAILY LIFE	CO1: Explain physics related phenomenon using basic physics principles . CO2 : To understand the basic concets of temperature and temperature scales. CO3 : To Acquire the knowledge about waves,lasers etc.
SEMESTER 6 *PH6CRT09* THERMAL AND STATISTICAL PHYSICS	CO1 : Develop skills in the problem solving using the concepts of heat and thermodynamics. CO2: Introduce applications of thermodynamics to heat engines such as Carnot engine, Otto engine and Diesel engine and the principle of refrigerator. CO3: Develop an appreciation of the concepts of order, disorder and entropy and an understanding of the heat as an energy.
SEMESTER 6 *PH6CRT10* RELATIVITY AND SPECTROSCOPY	CO1 : To acquire the knowledge about the atomic spectra, principle of ESR and NMR . Rotational, vibrational, electronic and Raman Spectra of molecules. CO2 : Fine structure of hydrogen, effects of spin-orbit interaction, atomic spectra. CO3: To understand the special theory of relativity.

SEMESTER 6
PH6CRT11
NUCLEAR ,
       PARTICLE PHYSICS
       AND ASTROPHYSICS
	CO1 : Understand and explain the general properties of nuclei, nuclear structure and nuclear models.
	CO2: Understand the basic knowledge of elementary particles
	
	CO3: Account for the nuclear fission and fusion processes.

SEMESTER 6 *PH6CRT12* SOLID STATE PHYSICS	CO1 : To explain the fundamental features of crystalline solids, metallic conduction through free electron model, Properties of insulators and semiconductors, band theory of solids, dielectric and magnetic properties of materials. CO2 : To acquire the knowledge about the basic of solid state physics such as Miller indices, reciprocal lattice, Brillouin Zones, Bragg's law, Fermi surface, Hall effect, magneto resistance, AC conductivity, Bloch theorem, Kronig-Penney model, Langevin theory, Clausius Mosotti Equation. CO3: Understand the relation between conductors ,insulators and superconductivity.
SEMESTER 6 CHOICE BASED COURSE *PH6CBT02* MATERIAL SCIENCE	CO1 : Understand the types of imperfections and diffusion mechanisms in solids CO2: Describe crystalline and non crystalline materials CO3: To understand the principles of various characterization techniques.
Complementary **Physics for mathematics** **semester 1** *PH1CMTO1* Properties of matter and error analysis	CO1: To describe the different types of errors. CO2:To understand the basic concepts of elasticity and different types strain etc. CO3: To provide the knowledge about different types of flows, theorems .
Semester 2 *PH2CMT01* Mechanics and astrophysics	CO1: To learn the fundamentals of harmonic oscillators, including damped and forced oscillators CO2::Describe the evolution and death of stars CO3: To understand the basic concepts of gravitational force and different types of pendulum.
Semester 3 *PH3CMT01* Modern physics and electronics	CO1: To describe the wave function and derive schrodinger equation . CO2:To interpret the characteristics of a transisror in CB and CE modes. CO3: To verify the truth tables of basic logic gates and universal gates. CO4: To understand the properties of nucleus.
Semester 4 *PH4CMT01* Optics and electricity	CO1:Toanalyse the different types of polarized light. CO2: To understand the laser action phenomena, properties of laser. CO3: To analyze the behavior of ac/dc circuits based on L,C,R.
Complementary physics **for chemistry** **Semester 1** *PH1CMT02* Properties of matters and thermodynamics	CO1: To understand the laws of thermodynamics and identify its outcomes. CO2:To understand the basis of mechanics. CO3: To understand the surface tension and surface energy.
Semester 2 *PH2CMT02* MECHANICS AND SUPERCONDUCTIVITY	CO1:To describe the conservation of momentum , force,linear momentum, angular momentum . CO2: To understand the different types of superconductors,and also about messiner effect. CO3:To understand the basic concepts of rotational

	mechanics.
SEMESTER 3 *PH3CMT02* MODERN PHYSICS AND MAGNETISM	CO1:To analyse the different kinds magnetic materials CO2 : To understand the basic concept of semiconductor diode and rectifiers. CO3: To describe the basic radioactivity and half life period. Co4: To learn about Heisenberg uncertainty principle, photo electric effect.
SEMESTER 4 *PH4CMT02* OPTICS AND SOLID STATE PHYSICS	CO1: To explain the phenomenon of diffraction and interference of light . CO2: To understand the different kinds of polarization and its effect on dielectric constant. CO3: To learn about crystalline , amorphous solids and also calculate packing factor.
Vocational courses **Semester-I** *AE1VOT01* PRINCIPLES OF ELECTRONIC COMPONENTS	CO1: To gain the basic ideas of electronic devices. CO2: To give the basic ideas of switches, types of switches , contact actions and also provide the concept of LCD and LED. CO3: To develop electronic circuits.
Semester-I *AE1VOT02* ELECTRONIC APPLICATIONS	CO1 :To learn about measuring instruments such as multimeter etc. CO2:To provide the knowledge about tuning circuit and different types of filters CO3: To design electronic circuits
Semester-II *AE2VOT03* BASICS OF POWER ELECTRONICS	CO1: To understand the working of JFET ,MOSFET . CO2: To explain the concept of FET amplifiers. CO3: To develop various amplifying systems
Semester-II *AE2VOT04* POWER ELECTRONICS	CO1 : To provide the basic ideas of thyristor. CO2:To give the information about uni junction transistors and silicon controlled switches. CO3:To understand the ideas about controlled rectifiers.
Semester-III *AV3VOT05* MICRO PROCESSORANDINTERFACINGDEVICES	CO1: To understand concepts of 8085 . CO2: To explain the concept of interrupts in microprocessor and interface between microprocessor. CO3: To develop programs for microprocessors
Semester-III *AE3VOT06* COMMUNICATION ELECTRONICS	CO1: To understand the basic communication system . CO2: To introduce the various modulation and demodulation techniques. CO3: To develop new communication systems
Semester-IV *AE4VOT07* LINEAR INTEGRATED CIRCUITS	CO1: To understand the comparator, integrator and differentiator. CO2: To analyze various op-amp circuit. CO3: To design op-amp circuits for various applications.
Semester-IV *AE4VOT08* APPLICATIONS OF MICROPROCESSORS	CO1: To apply the programming instructions to perform simple programs using microprocessor. CO2: To have a thorough knowledge about the basic concepts of 8051 microcontroller. CO3: To develop programs for microcontrollers.

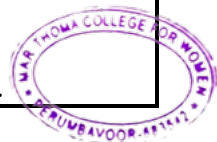|	
PHYSICS PRACTICAL **SEM (1 &2)** *PH2CRP01* Mechanics and Properties of Matter	CO1: Develop the ability to collaborate with peers in a scientific / lab environment. CO2: Apply a conceptual and quantitative understanding to solve physics problems relating to mechanics. CO3: To find out the mechanical properties of unknown materials
SEM (3&4) *PH4CRP02* Optics and Semiconductor Physics	CO1: Students would gain practical knowledge of basic electronic circuits and components by performing experiments in laboratory the experiments include: LCR,Transistors, Amplifiers, and Oscillators. CO2: Able to gain practical knowledge by performing various experiments of Electronics, Optics and Radiation. CO3: To develop novel optical systems.
SEM (5&6) *PH6CRP03* Electricity, Magnetism and LASER	CO1: Demonstrate various electromagnetic process. CO2Analyze scientific data relating to electricity and magnetism. CO3: Display critical thinking skills in applying physics knowledge in the experimental process involving electricity and magnetism.
SEM(5&6) *PH6CRP04* Digital Electronics	CO1: To learn basics of digital electronics CO2: Able to identify various Digital circuits CO3: To design digital circuits
SEM(5&6) *PH6CRP05* Thermal Physics, Spectroscopy and C++ Programming	CO1: To learn about basic knowledge of computer. CO2: To develop programs using C++ CO3: To design new thermodynamic systems
SEM(5&6) *PH6CRP06* Acoustics, Photonics and Advanced Semiconductor Physics	CO1: To understand the physical principles and laws that describe phenomena related to acoustic, electromagnetism and optics. CO2: To design and develop new acoustic systems CO3: Students would learn about electronic circuits such as Amplifiers and Oscillators.
COMPLEMENTARY PHYSICS PRACTICAL SEMESTER 1&2 (First Year) *PH2CRP01*	CO1: Develop and apply a conceptual and quantitative understanding to solve physics problems relating to mechanics. CO2: Develop the ability to collaborate with peers in a scientific / lab environment.
SEMESTER 3&4 (Second Year) *PH4CRP02*	CO1: Understand and apply basic concepts of electricity and apply the knowledge of electricity to simple circuits. CO2: Able to learn about optical phenomena such as interference, diffraction and dispersion and do experiments related to optical devices: Prism, grating, spectrometers

B.ScCHEMISTRY–MODELI

PROGRAMMESPECIFICOUTCOMES

PSO1	• To understand the basic concepts of methodologyofchemical science.
PSO2	• Todevelopthepracticalskillsneededtodesign,conductand interpretchemicalresearch.
PSO3	• Todevelopscientificreasoningandanalyticalproblemsolving skills.

Course Name and Code	Course Outcome Statement
Semester 1 CH1CRT01 General and Analytical chemistry	CO1: To discuss the basic concepts and methodology of science in general and Chemistry. CO2: Acquire knowledge in instrumental tools used for practicing chemistry and to explain the important analytical techniques. CO3:To describe different types of errors and data analysis.
Semester 2 CH2CRT02 Theoretical and Inorganic Chemistry	CO1: To interpret interest among students in various branches of inorganic chemistry. CO2: To impart essential theoretical knowledge on atomic structure and to create knowledge in chemical bonding. CO3:To acquire the knowledge in periodic table and periodic properties.
Semester 3 CH3CRT03 Organic Chemistry-I	CO1: To acquire knowledge in emerging areas of organic chemistry. CO2: To understand basic concepts of organic chemistry. CO3: To evaluate the principle of classification of organic compounds and to find the nomenclature of organic compounds.
Semester 4 CH4CRT04 Organic Chemistry -II	CO1: To impart the students a thorough knowledge about the chemistry of some selected functional groups with a view to develop proper aptitude towards the study of organic compounds. CO2: To define various properties and reactions of some organic compounds. CO3: To analyse reaction mechanisms.
Semester 5 CH5CRT05 Environment, Ecology and Human Rights	CO1: To create environmental awareness to understand the sensitivity of environment. CO2: To understand the different environmental issues and its management and to adapt knowledge on environmental pollution. CO3: To develop a sense of responsibility and proactive citizenship.
Semester 5 CH5CRT06 Organic Chemistry-III	CO1: To impart the students a thorough knowledge about the mechanisms of reactions of some selected functional groups in organic compounds. CO2: To compare basic ideas of carbohydrates, heterocyclic compounds. CO3: To obtain basic knowledge on mode of action of drugs.

Semester 5 CH5CRT07 Physical Chemistry I	CO1: To assess the general characteristics of different states of matter. CO2: To explain various defects in solids. CO3: To attain the basic knowledge on surface chemistry and colloids.
Semester 5 CH5CRT08 Physical Chemistry II	CO1: To create a thorough knowledge of the fundamentals of microwave, infra red, Raman, electronic, NMR, and ESR spectroscopy. CO2: To describe concepts of fundamentals of quantum mechanics. CO3: To develop knowledge of fundamentals of spectroscopy and basic molecular spectroscopy.
Semester 5 Open Course CH5OPT01 Chemistry In Everyday Life	CO1: To make insight into the processes involved in the production of soaps, detergents, cosmetics etc. CO2: To illustrate basic knowledge in food science, nanomaterials, drugs, plastics, dyes and paper. CO3:To create elementary ideas on pesticides and fertilizers.
Semester 6 CH6CRT09 Inorganic Chemistry	CO1: To develop a thorough knowledge of the different theories to explain the bonding in coordination compounds. CO2: To improve the level of understanding of the chemistry of organometallic compounds, metal carbonyls and metal clusters. CO3: To explain various inter halogen compounds and bonding in boron compounds and to attain knowledge about some bioinorganic compounds.
Semester 6 CH 6CRT10 Organic ChemistryIV	CO1; To create basic idea about structural elucidation of alkaloids. CO2: To identify the fundamentals of vitamins, lipids and steroids. CO3: To acquire thorough idea in the chemistry of proteins, amino acids and nucleic acids and to identify organic compounds using spectroscopy.
Semester 6 CH6CRT11 Physical Chemistry III	CO1: To compute thermochemical equations and kinetic equations. CO2: To assess phase diagrams and elementary idea of catalysis. CO3: To generate thermodynamic and kinetics aspects of chemical reactions and phase equilibria.
Semester 6 CH6CRT12 Physical Chemistry IV	CO1: To apply basic concepts of solutions and electrochemistry CO2: To practice knowledge on problem solving skill. CO3: To learn ionic equilibria and electrical properties of ions in solutions.
Semester 6 Choice Based Course CH6CBT01 Polymer Chemistry	CO1:To implement basic ideas of polymer chemistry and polymer technology. CO2: To evaluate the reactions and properties of different polymers. CO3:To detect the applications of different polymers.

COMPLEMENTARY (For Zoology)

Semester 1 CH1CMT01 Basic Theoretical And Analytical Chemistry	CO1: To explain the structure of atom and to develop the basic concept on chemical bonding CO2: To learn the important analytical techniques and to observe various industrial techniques. CO3: Acquire knowledge in instrumental tools used for practicing chemistry.
Semester 2 CH2CMT02 Basic Organic Chemistry	CO1: To discuss fundamental concepts of organic chemistry. CO2: To illustrate the mechanisms in various organic reactions and to imagine about conformations. CO3: To learn about various polymers and its

	applications.
Semester 3 CH3CMT04 Inorganic And Organic Chemistry	CO1: To assess about nuclear reactions and its applications. CO2: To create idea about various drugs and its mode of action. CO3: To categorize about the ingredients in a cosmetic product and to understand about toxic effects of cosmetics and fast foods.
Semester 4 CH4CMT06 Advanced Bio-Organic Chemistry	CO1: To compare different types of soaps and detergents and to analyse the structure of DNA, RNA etc. CO2: To explain about classification of vitamins, steroids and hormones. CO3: To define carbohydrates and its structure.

PRACTICALS AND PROJECT
For Core Chemistry

Semester 1&2 CH2CRP01 Volumetric Analysis	CO1: To develop skills in different titrations. CO2: To estimate various metals. CO3: To assess complexometric titration, redox titration, acidimetric and alkalimetric titrations.
Semester 3&4 CH4CRP02 Qualitative Organic Analysis	CO1:To compare different functional groups. CO2: To make tests for Nitrogen, Sulphur, Halogens to analyse organic compounds CO3: To identify test for unsaturation and aromatic character.
Semester 5&6 CH6CRP03 Qualitative Inorganic Analysis	CO1: To identify different acid radicals and basic radicals. CO2: To analyse a mixture containing one interfering radical. CO3: To verify various identification and confirmation tests.
Semester 5&6 CH6CRP04 Organic Preparations And Laboratory Techniques	CO1: To study various organic preparations. CO2: To acquire practical skill in distillation, TLC. CO3: To develop skills in crystallisation, solvent extraction.
Semester 5&6 CH6CRP05 Physical Chemistry Practicals	CO1: To acquire knowledge in conductometric and potentiometric titrations. CO2: To interpret the molecular weight by Rast's method and to observe freezing point. CO3: To measure the CST of water-phenol system and to observe transition temperature of a salt hydrate
Semester 5&6 CH6CRP06 Gravimetric Analysis	CO1: To estimate Barium as Barium Sulphate. CO2: To acquire practical skill in precipitation. CO3: To develop skills in gravimetric analysis.
Semester 5&6 CH6PRP01 Project, Industrial Visit & Comprehensive Viva-Voce	CO1: To develop skills in various industrial techniques. CO2: To observe the working and principle of various industrial techniques. CO3:Toanalyse graphical datas from the experiment and to develop skills to submit a project report.
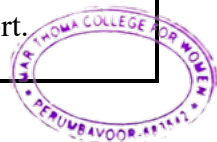
For complementary (zoology)

Semester 1&2 CH2CMP01 Volumetric Analysis	CO1: To develop skills in different titrations. CO2: To analyse about acidimetric and alkalimetric titrations. CO3: To acquire skills in permanganometry, dichrometry, iodometry.
Semester 3&4 CH4CMP03 Organic Chemistry Practicals	CO1: To practice tests for Nitrogen, Sulphur, Halogens. CO2: To verify systematic analysis of organic compounds. CO3: To identify test for unsaturation and aromatic character.

B.ComModel1FinanceandTaxation

ProgrammeSpecificOutcome:

PSO 1- Graduates will be able to inculcate rational, diligent andethical approach to judiciously employ accounting and statisticaltoolsto assistmanagerialdecision making

PSO 2- Graduates will be able to estimate tax liability of an assesseeand file tax returns in Compliance with the Provisions of IncomeTaxand GSTAct.

PSO 3- Graduates will be able to systematically analyse the socioeconomicandlegalparadigmsofabusinesstoassessitsperformance in the contemporary times and its readiness for thefuture.

CourseOutcome:

Sl No	NameoftheSubject	CourseOutcomes: Aftercompletingthecourse,thestudentshallbeableto:	
1.	Dimensionsand Methodologyof BusinessStudies	CO1 CO2 CO3	Explaintheecommerceframeworkanditsapplications Classifythe electronicpayment methodsand usageof electronicdeliverychannels Understandingtheconceptsandpreparationofre searchreports
2.	FinancialAccounting–I	CO1 CO2 CO3	Related accounting concepts and reproduce financialstatements UnderstandingandPreparationofRoya ltyandconsignment accounts Applytheconceptoffarmaccounting

3.	Corporate RegulationandAdministration	CO1	Understand the corporate legislations pertaining to theformationof a company
		CO2	To identify legal contraventions associated to Issue ofshares&AdministrationofCompany
		CO3	To elucidate the provisions concerned with Winding up of aCompany
4.	Bankingand Insurance	CO1	Outlinetheconceptsofbanking
		CO2	Impart knowledge on the procedure for opening andoperationof bankaccounts
		CO3	UnderstandingtheconceptsandprinciplesofInsurance
5.	FinancialAccounting2	CO1	Preparing accounts based onhire purchasesystem
		CO2	Understand the key concepts of branch
		CO3	accountsPreparingaccountsfordissolutionofpartnershipfirm.
6.	Business RegulatoryFramework	CO1	Understandingofgeneralprinciplesof Lawofcontract.
		CO2	DevelopknowledgeonspecialcontractsUnderstanding
		CO3	theconceptsofsaleofgoodsAct
7.	BusinessManagement	CO1	Identifythetypesandfunctionsofplanningandorganizing.
		CO2	Outlineaboutthefunctionsofleadership.
		CO3	Apply the types of communication and techniques ofcontrol.
8.	Principles of BusinessDecisions	CO1	Outline the role of business economics in decision
		CO2	making.Explain the factors that determine the supply and demandfor productiveinputs.
		CO3	Examinethe pricedetermination in variousmarket forms.
9.	CorporateAccounts1	CO1	Acquire the conceptual knowledge of the fundamentals ofcorporateaccounting
		CO2	Have a comprehensive knowledge about the latestProvisionsof the companiesact
		CO3	Gain expertize in preparation of final accounts as per therevisedschedule (3)
10	GST	CO1	-Understand the stages of evolution of GST and thestructureof GST
		CO2	-DistinguishbetweenVATand GST
		CO3	Evaluate the importance of GST in the growth of Indianeconomy
11.	Quantitative Techniquesfor Business 1	CO1	Get highly familiarised with the concept of
		CO2	statistics.Understanding of the measures of central tendency anddispersion
		CO3	Develop knowledge on various methods of interpolationandextrapolation
12.	Financial Markets andOperations	CO1	Illustrate the Indian financial system and
		CO2	marketsIdentify the types of mutual fund and
		CO3	derivatives.Explainthe functions ofstockexchange.
13.	MarketingManagement	CO1	Definemarketandmarketenvironment.
		CO2	Enhance knowledge about the various marketing
		CO3	mix.Understandingofvariouspricingstrategies.

14.	CorporateAccounts2	CO1	Toprovidethe studentsget an idea about Reconstructionofcompanies
		CO2	Preparation of Final accounts of banking and Insurancecompanies
		CO3	Preparationofaccountsforliquidationofcompanies.
15.	Quantitative Techniquesfor Business 2	CO1	Describe the association between dependent andindependentvariables
		CO2	Compute correlation coefficient using different
		CO3	methodsEstimateregression line and regressioncoefficient
16.	FinancialServices	CO1	Explain Fund based and fee based financial services
		CO2	-Familiarisewiththeprocessofsecuritisation
		CO3	Familiarisewiththerecenttrendsinfinancialservices
17.	EntrepreneurshipDevelopment and ProjectManagement	CO1	Develop entrepreneurial spirit among
		CO2	studentsGet sufficient knowledge to start-up ventureswithconfidence
		CO3	Familiarize students with the various schemes andInstitutionsoperatingforsupportingtheentrepreneurs
18.	CostAccounting-1	CO1	Practicethepreparationofcostsheet
		CO2	Provideknowledgeforvaluationofinventory
		CO3	Togiveanexposure oncomputation ofwageratesandallocationof overheads.
19.	EnvironmentManagement and HumanRights	CO1	Equip oneself to make an equitable use ofnaturalresources
		CO2	Understand the social issues related to environment andthenecessity to protectit
		CO3	FamiliarisewithconceptslikeGreenaccounting ,GreenmarketingandGreen banking
20.	FinancialManagement	CO1	Defineandidentifytheconceptsoffinancialmanagement
		CO2	Understand capital structure, cost of capital for strategicfinancialdecision making
		CO3	Gainknowledgeofworkingcapitalmanagement.
21.	IncomeTax 1		CO1. To comprehend the historical evolution & administrativeframeworkof Income Tax in India
			CO2. To determine the residential status of an individual and hisincidenceof tax
			CO3. To compute the taxable income pertaining to Salary,HouseProperty& Business
22.	CostAccounting2	CO1	To apply the acquired knowledge in the preparation ofjob,Batch and process accounts
		CO2	ApplyingtheknowledgeinOperationcosting
		CO3	Developknowledgeinthepracticalapplicationsofbudgetarycontrol
23.	IncomeTax 2		CO1 To determine the taxable income arising :on account oftransferofCapitalassets&Fromanyotherresidualincome.CO2. To calculate the total income & tax liability of an individual CO3. To comprehend the functions & powers of various regulatorybodiesgoverning the tax systemin India

24.	Advertisement and Sales Management	CO1	Recognise the role of advertisement in the marketing mix CO2 Understand ethics in advertisement
		CO3	Identify the essentials of an effective advertisement appeal
25.	Auditing and Assurance	CO1	Perceiving the basic concepts of auditing and working of an auditor
		CO2	Understand the role of Auditing and Assurance Standard Board, India
		CO3	Gaining knowledge in the verification and valuation of assets and liabilities
26.	Management Accounting	CO1	Understand the evolution of Management Accounting CO2 Distinguish between Management, Financial and cost accounting
		CO3	Develop knowledge in the practical applications of ratios, fund flow and cashflow

B.Com Model 1 Computer Application

Programme Specific Outcome:

PSO1- Apply the knowledge and skills learnt in this programme towards the industrial scenarios of the real world
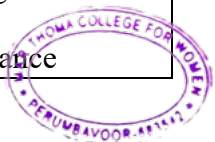
PSO2- Apply the knowledge and skills gained in computer application software to meet the technological and creative requirements of the industry.

PSO3- Follow ethical values and principles as a responsible citizen and contribute towards society's development

Course Outcome:

Sl No	Name of the Subject	Course Outcomes: After completing the course, the student shall be able to:	
1.	Dimensions and Methodology of Business Studies	CO1 CO2	Explain the ecommerce framework and its applications Classify the electronic payment methods and usage of electronic delivery channels
		CO3	Understanding the concepts and preparation of research reports
2.	Financial Accounting–I	CO1	Related accounting concepts and reproduce financial statements
		CO2	Understanding and Preparation of Royalty and consignment accounts
		CO3	Apply the concept of farm accounting
3.	Corporate Regulation and Administration	CO1	Discuss the importance of Companies Act
		CO2	Elucidate the procedures involved in the formation and registration of the company
		CO3	Discuss the laws relating to winding up of a company
4.	Banking and Insurance	CO1	Outline the concepts of banking
		CO2	Impart knowledge on the procedure for opening and operation of bank accounts
		CO3	Understanding the concepts and principles of Insurance

5.	FinancialAccounting2	CO1	Preparing accounts based on hire purchase
		CO2	systemUnderstand the key concepts of branch
		CO3	accountsPreparingaccountsfordissolutionofpartnership firm.
6.	Business RegulatoryFramework	CO1	Understandingofgeneralprinciplesof Lawof contract.Dev
		CO2	elopknowledgeonspecialcontractsUnderstandingthecork
		CO3	ceptsofsaleofgoods Act
7.	BusinessManagement	CO1	Identify the types and functions of planning andorganizing.
		CO2	Outlineaboutthefunctionsofleadership.
		CO3	Apply the types of communication and techniques ofcontrol.
8.	PrinciplesofBusiness Decisions	CO1	Outline the role of business economics in decision
		CO2	making.Explainthefactorsthatdeterminethesupplyanddema nd for productiveinputs.
		CO3	Examinetheprice determinationin variousmarketforms.
9.	CorporateAccounts1	CO1	Acquire the conceptual knowledge of the fundamentals ofcorporateaccounting
		CO2	Have a comprehensive knowledge about the latestProvisionsof the companiesact
		CO3	Gain expertize in preparation of final accounts as per therevisedschedule (3)
10	Information Technologyfor Business	CO4	Understand about computer based information
		CO5	system.Inculcate knowledge about importance of integration ofbusiness information through computer for decisionmaking.
		CO6	UnderstandthefundamentalsofHTML
11	Information TechnologyforBusiness (Practical)	CO1	MakingexpertsinmostwidelyusedHTMLlanguage
11.	Quantitative Techniquesfor Business 1	CO1	Get highly familiarised with the concept of
		CO2	statistics.Understanding of the measures of central tendency anddispersion
		CO3	Develop knowledge on various methods of interpolationandextrapolation
12.	FinancialMarketsand Operations	CO1	Illustrate the Indian financial system and
		CO2	marketsIdentify the types of mutual fund and
		CO3	derivatives.Explainthe functions ofstockexchange.
13.	MarketingManagement	CO1	Definemarketandmarketenvironment.
		CO2	Enhance knowledge about the various marketing
		CO3	mix.Understandingofvariouspricingstrategies.
14.	CorporateAccounts2	CO1	To provide the students get an idea about Reconstruction ofcompanies
		CO2	Preparation of Final accounts of banking and Insurancecompanies
		CO3	Preparationofaccountsforliquidationofcompanies.
15.	Quantitative Techniquesfor Business 2	CO1	Describe the association between dependent andindependentvariables
		CO2	Compute correlation coefficient using different
		CO3	methodsEstimateregression line and regressioncoefficient

16.	Information technologyfor office	CO1	Understanding of basic computer
		CO2	applicationEnhanceknowledgeonMSOfficep ackage
16.	Information technologyforoffice(Pr actical)	CO4	Develop word document using the word package
		CO5	toolsConstruct worksheets using Excels advanced
		CO6	functionality.Demonstratepresentationslidesusingpowerpoi nttools.
17.	EntrepreneurshipDevelo pmentandProjectManage ment	CO1	Develop entrepreneurial spirit among studentsCO2 Get sufficient knowledge to start-up ventureswithconfidence
		CO3	Familiarize students with the various schemes andInstitutionsoperatingforsupportingtheentrepreneur s
18.	CostAccounting-1	CO1	PracticethepreparationofcostsheetProvidekno
		CO2	wledgeforvaluationofinventory
		CO3	To give an exposure on computation of wage rates andallocationof overheads.
19.	Environment Management and HumanRights	CO1	Equiponeself to makean equitableuse of natural resources
		CO2	Understand the social issues related to environment and thenecessityto protect it
		CO3	Familiarise with concepts like Green accounting ,Greenmarketingand Greenbanking
20.	FinancialManagement	CO1	Define and identify the concepts of financial
		CO2	managementUnderstand capital structure, cost of capital for strategicfinancialdecision making
		CO3	Gainknowledgeofworkingcapitalmanagement.
21.	Computerised Accounting(T heory)	CO1	To acquire basic knowledge in the computerisedaccounting systems and its application in the area ofbusiness
		CO2	Familiarise the concept of GST and GST compliance inaccountsusing Tally software
21.	Computerised Accounting(P ractical)	CO1	PracticalknowledgeinTallyERP.9software.
22.	CostAccounting2	CO1	To apply the acquired knowledge in the preparation of job,Batchand process accounts
		CO2	Applying the knowledge in Transportation
		CO3	costingDevelopknowledge in the practical applications ofbudgetarycontrol
23.	Statistical package forSocialScience(Theor y)	CO1	Read-in, enter, organise, and save data in a suitable
		CO2	way.Calculate/recode variables and prepare data for
		CO3	analysis.Conductdescriptiveandbasic inferentialstatistics.
23.	Statistical package forSocial Science(Practical)	CO1	PracticalknowledgeintheuseofIBMSPSSsoftware.
24.	AdvertisementandSales Management	CO1	Recognise the role of advertisement in the marketing
		CO2	mixUnderstandethics in advertisement
		CO3	Identifythe essentialsof an effectiveadvertisement appeal

25.	AuditingandAssurance	CO1	Perceiving the basic concepts of auditing and working ofanauditor
		CO2	UnderstandtheroleofAuditingandAssuranceStandardBoard, India
		CO3	Gainingknowledgeintheverificationandvaluationofasse tsand liabilities
26.	ManagementAccounting	CO1	Understand the evolution of Management
		CO2	AccountingDistinguish between Management , Financial and costaccounting
		CO3	Developknowledge in the practical applications of ratios,fund flowandcash flow

B. A. ENGLISH LANGUAGE AND LITERATUREMODELIIADMINISTRATIVEASSISTANT

## I.   PROGRAMMESPECIFICOUTCOMES

PSO1: Comprehend the evolution and contemporaneity ofEnglish language and literatures across theworld.
PSO2: Applydiverseliteraryandculturaltheoriestocriticallyanalysetexts.
PSO3: Acquirecommunication,accountingandITskillsforadministerialandbusinesspurposes.

II.   COURSEOUTCOMES

SEMESTERONE

CourseCode	TitleoftheCourse	CourseCategory	Hours perweek
EN1CC01	**Fine-tuneYourEnglish**	**CommonCourse-1**	**5**
EN1CCO2(for I B.Sc. Zoology,Maths, Chemistryalone)	**PearlsfromtheDeep**	**CommonCourse-2**	**4**
EN1CR01	**MethodologyofLiteraryStudies**	**CoreCourse-1**	**5**
EN1CM01(Ad)	**English for BusinessCommunication-1**	**Complementary Course-1**	**5**
EN1VO01(C)	**InformationTechnologyand ComputerApplications**	**Vocational1**	**5**

TitleofCourse	CourseOutcomes	CognitiveLevel	PO/PSOlinked
Fine-tuneYourEnglish	CO1: **Define** key terms and concepts ofelementarygrammar	Remember	PO2
	CO2: **Demonstrate** the knowledge oflanguage and grammar in various levelsof language for documentation,conversation and other forms ofcommunication	Apply	PO2
	CO3: **Compare/ Contrast** the differentusagesof languagein various contexts.	Analyze	PO1
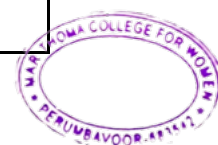
Pearls from theDeep(for I B.Sc.Zoology, Maths,Chemistrya lone)	CO1: **Define** various literary genresthroughtheworks given	Remember	PSO1
	CO2: **Identify** the characteristics ofdifferentgenres in literature CO3: **Interpret** the relevance of aliteraryworkanditssocialimplications	Understand Apply	PO2
Methodology ofLiteraryStudi es	CO1: **Identify** the political andcontextualdevelopmentoflitera ry studies.	Remember	PSO1
	C02: **Outline** the development ofliterary criticism and theory fromtraditionalto formalisticmode	Understand	PSO2
	CO3: **Apply** the various modes ofliterary theory and criticism to thesamplesprescribedforstudy	Apply	PSO2
English forBusinessComm unication-1	CO1:**Write**varioustypesoflettersrequired for the smooth functioning ofthebusiness CO2:**Prepare** circulars, notices andmaintain minutes of the meetingsCO3:**Create** effective advertisementsfornewspa pers andsouvenirs CO4: **Decipher** the use of memory aidsinsystematicorganizationofinformati on.	Understand Understand CreateAppl y	PSO3 PSO3 PO1 PO1
InformationTec hnology andComputerA pplications	CO1:**Understand** the scientificapproac hofquantification,storingandcommunicat ion of digital informationCO2:**Familiarize**withthepra cticeofreprography CO3:**Retrieve**informationasdemandedby the end user CO4: **Analyse**various national andinternationalinformationsystem s	Understand Understand Apply Analyse	PSO4

SEMESTERTWO

CourseCode	TitleoftheCourse	CourseCategory	Hours perweek
EN2CCO3	**IssuesthatMatter**	**CommonCourse**	**5**
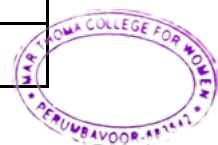
EN2CC04	SavouringtheClassics	CommonCourse	5
EN2CR02	Introducing Languageand Literature	CoreCourse	5
EN2CM02(Ad)	English for Business Communication-2	Complementary2	5
EN2VO02(C)	Computer ApplicationsandDTP(Practical)	Vocational2	5

TitleofCourse	CourseOutcomes	CognitiveLevel	PO/PSO linked
Issues thatMatter	C01: **Understand** contemporary issues ofsocial,economicandpoliticalsignificance.	Understand	PO3
	CO2: **Analyse**literary texts to identifymultiple perspectives in the perception of aproblem	Apply	PO1
	CO3: **Write** critical responses to issues wefacein real life.	Create	PO2
Savouringthe Classics	CO1: **Recall** the early history of classics-"time-testedness" over the ages, depictinguniversalhuman conditions	Remember	PSO1
	CO2: **Examine/Illustrate** the Classic textsheldasamirroredreflectionofthesociety	Apply	PSO1
	CO3: **Analyse**various literary features ofClassicwriting	Analyse	PSO1
IntroducingL anguage andLiterature	CO1: **Identify** the evolution ofEnglishlanguageand literarture	Remember	PSO1
	CO2: **Classify** the genres and examinetechniquesof narration	Apply	PSO1
	CO3: **Create/ Identify** the links betweenliteratureandfilmasnarrativeexpressions.	Evaluate	PSO2
English forBusinessCom munication-2	CO1: **Understand** the concept ofcommercialcorrespondence	Understand	PSO3
	CO2: **Familiarize** with terms used incommercialcorrespondence	Understand	PSO3
	CO3: **Create** effective messages on thetelephone	Create	PO1

CourseCode	TitleoftheCourse	CourseCategory	Hoursperweek
EN3CC05	Literatureand/asIdentity	CommonCourse-5	5
EN3CR03	Harmony of Prose	CoreCourse-3	4
EN3CR04	SymphonyofVerse	CoreCourse-4	5
EN3CM03	Evolution of LiteraryMovements: The Shapers ofDestiny	Complementary Course-3	6
EN3VO03(Ad)	BusinessAccounting	VocationalCourse-3	5

TitleofCourse	CourseOutcomes	CognitiveLevel	PO/PSOlinked
Literature and/ asIdentity	CO1: **Identify** issues related withsocial realities and culturalmodalities likegender, divisions ofclass, creed, communal tensions andquestionsof identity	Identify	PSO2
	CO2: **Trace** the fissures, thetensions and the interstices presentinSouthAsianregionalidentities	Understand	PO1
Harmony of Prose	CO1:**Recall**thedifferentessaysread/studied	Remember	PSO1
	CO2: **Identify** the essayists inEnglishlanguage	Remember	PSO1
	CO3:**Analyse**the different types ofessay	Analyze	PSO1
SymphonyofVerse	CO1:**Explain**thesocialandcultural specifications of each age inthedevelopment of poetry.	Understand	PSO1
	CO2: **Compare/contrast** the poetictechniques used by poets rangingfrom the sixteenth century to thecontemporaryage.	Analyse	PSO1

	CO3: **Write** detailed analysis ofpoems through close scrutiny ofconceptsandtechniquesdiscussed.	Create	PO2
ShapersofDestiny	C01: Comprehend the evolution ofEnglish literature by analysing thepolitical and social context of theera	Understand	PSO2
	CO2: **Analyse**how history shapesand mends the life and literature ofpeople	Analyse	PSO1
	CO 3: Examine how social contextof other countries influenced itsliterature	Examine	PSO2
GemsofImagination	CO1:**Analyse**the lives they havecome across the text in the contextoftheirawarenessoftherealworld	Analyze	PO1
	CO2:**Contrast/ Compare** thegenres of literature they have learntsofar	Analyze	PSO1
	CO3: **Examine** the texts asreflectionsofthesocialorder	Apply	PO2

SEMESTERFOUR

CourseCode	TitleoftheCourse	CourseCategory
EN4CCO6	**Illuminations**	**CommonCourse**
EN4CR05	**Modesof Fiction**	**CoreCourse-5**
EN4CR06	**LanguageandLinguistics**	**CoreCourse-6**
EN4CM04	**Evolution of Literary Movements:TheCrossCurrentsof Change**	**ComplementaryCourse**
EN4VO04(Ad)	**OfficeProcedures and Practices**	**Vocational4**
(OnlyforBCom)	**RevisitingtheClassics**	**CommonCourse**

TitleofCourse	CourseOutcomes	Cognitive Level	PO/PSOlinked
IIluminations	CO1: **Explore** the philosophy of life andappreciate the value of being a humanenumeratedinliteratureofdifferentphases	Analyse	PSO1
	CO2: **Create** insightful perspective towardslife in the students by critically analysingthetext	Create	PSO2
Modes ofFiction	**CO1:Identify**theelementsoffiction	Remember	PSO1
	CO2: Analysethe language, narrativetechniques,figuresofspeechusedintexts	Analyze	PSO1
	CO3:Interprettextswithanawarenessofand curiosity for other viewpoints	Analyze	PSO2
Language andLinguistics	CO1: **Analyse**the phonological,morphological and semantic structure ofwords.	Analyse	PSO1
	CO2: **Demonstrate** how literary theorieslike strucuralism and poststructuralism hasevolvedfromlinguistic principles.	Understand	PSO2
	CO3: **Write** the phonetic transcription oflinguisticsamples	Apply	PSO1
TheCrosscurrentsofChange	CO1: **Understand** the interrelationshipsbetween historical stirrings and literaryawakenings	Understand	PSO1
	CO2: **Identify** the evolution of momentoushappenings in history which had impactedthethinkingprocessandliteratureoftheeage	Identify	PSO2
	CO 3: Interpret the literature of othercountries with respect to their social andpoliticalrevolutions	Interpret	PO1
Revisitingthe Classics	CO1:**Examine/Illustrate**theClassictextsas a reflection of society	Apply	PSO1
	CO2:**Analyse**variousliteraryfeaturesof Classicwriting	Analyse	PSO1
	CO3:**Discuss**thesetting,charactersandplotof the texts	Evaluate	PO2

CourseCode	TitleoftheCourse	CourseCategory	Hours perweek
EN5CROP03	EnglishforCareers	OpenCourse	4
EN5CR07	ActsontheStage	CoreCourse-7	5
EN5CR08	Literary Criticism andTheory	CoreCourse-8	5
EN5CR09	IndianWritinginEnglish	CoreCourse-9	5
EN5CREN01	Environmental Science andHumanRights	CoreCourse	5

TitleofCourse	CourseOutcomes	CognitiveLevel	PO/PSO linked
Actsonthe Stage	CO1: **Examine** the socio-culturalsignificanceof theatre	Analysis	PO1
	CO2: **Evaluate** one act plays based ontheoretical frameworks like postcolonialismandsubalternity	Evaluate	PSO2
	CO3: **Examine** the functioning ofShakespeareantragedies	Evaluate	PSO1
LiteraryCriti cism andTheory	**CO1: Recall** the fundamentals of LiteraryCriticism and Theory as taught in semester 1Methodology of Literary Studies(EN1CRT01).	Remember	PSO2
	CO2: Illustrate, from the prescribed works,various features and techniques employed incriticism.	Apply	PSO2
	CO3:Constructacriticalwrite-uponanygiventext (Prose&Poetry)	Create	PO1
IndianWritingi n English	CO1:**Identify**literaryfigures,socio-politicalmilieuof the work	Understand	PSO1
	CO2: **Examine** the evolution of IndianWritinginEnglishintheglocalcont ext.	Analyze	PSO1
	CO3:**Critique**theprescribedworksasarefl ectionoflife, cultureandsociety	Evaluate	PO1

Environmental Science andHumanRights	CO1: Understand the scope, importance andneedfor environmental studies.	Understand	PO3
	CO2: **Analyse**the extent of environmentalproblems and become socially responsiblecitizens	Analyse	PO1
	CO 3: Examinedifferent solutions to theenvironmental problems endured by one'sownsociety.	Examine	PO1
English forCareers	CO1: **Develop** communicative skills requiredfora successfulcareer	Understand	PO2
	CO2: **Apply** oral and written communicationto enhance academic and professional use oflanguage	Apply	PO2
	CO3:**Analyse**the communicative skillsrequiredto balance familyand career	Analyse	PO1

SEMESTERSIX

CourseCode	TitleoftheCourse	CourseCategory	Hours perweek
EN6CB02	**Modern MalayalamLiteratureinTranslation**	**ChoiceBased Course**	**4**
EN6CR10	**PostcolonialLiteratures**	**CoreCourse-10**	**5**
EN6CR11	**Women Writing**	**CoreCourse-11**	**5**
EN6CR12	**AmericanLiterature**	**CoreCourse-12**	**5**
EN6CR13	**Modern WorldLiterature**	**CoreCourse-13**	**5**
EN6PR01	**Project**	**Project**	**1**

Title ofCourse	CourseOutcomes	CognitiveLevel	PO/PSOlinked
Postcolonial Literatures	CO1: **Recognize** the Eurocentric.notions about identity and culturethroughliterature	Identify	PSO1
	CO2: Analyse the diverse and complexpostcolonial identities in literature andsocialcontexts.	Analyse	PSO2
	CO 3: Dissect the colonised minds ofthe people of the newly independentnations and prepare them to respecttheirtraditions.	Analyse	PO1
Women Writing	CO1: **Discuss** the waves of feminism inthe social and cultral framework ofglobaltimeline	Understand	PSO2
	CO2: **Compare/ Contrast** variousfeminisms and prescribed literary textswithinthis frame.	Analyze	PSO1
	CO3: **Critique** the works through thelens of various critical theories and keyconcepts	Evaluate	PSO2
American Literature	CO1: **Identify** the socio-culturalcontexts in which American Literatureevolved	Remember	PSO1
	CO2**: Examine** American prose,poetry, drama and fiction in relation totheirhistorical andcultural contexts	Analyse Evaluate	PSO1 PSO1
	CO3: **Evaluate** the various literarymovementsandtheirroleinthegrowth ofAmericanLiterature		
ModernWorldLiterature	CO1**: Recall** the literatures known tothe students and place it in geographicalcontext	Remember	PSO1
	CO2: **Define** the basic tenets of modernworldliterature.	Remember	PSO1
	CO3: **Apply** the various theoreticalelementsonany givenliterary text.	Apply	PSO2

ModernMalayalamLiterature inTranslation	CO1: **Recognise**the major writers andworksofModernMalayalamliterature	Remember	PSO1
	CO2: **Demonstrate** the influence ofliterary movements from elsewhere inMalayalamliterature	Understand	PSO1
	CO3: **Examine** the limitations andpossibilities of translation in thedifferentgenres	Analyse	PSO2
Project	CO1: **Understand** the basics ofresearch methodology and academicdocumentation	Understand	PSO2
	C02: **Analyse**a text based on anyliterary/cultural theory, philosophicalthoughtor theoreticaltool	Analyse	PSO2
	CO3:**Prepare**a detailedproject report	Create	PO2

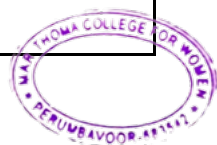# B.A.History(ModelII,Archaeology&Museology)
COURSEOUTCOMES

Sl. No.	NameofthePaper	CourseOutcomes
		Afterthecompletionofthecourse,thestudentswillbeable:
1	**SEMESTERI** **Core course: HY1CRT01-** Perspectives and methodologies insocialsciences –history	**CO1 :**To familiarize the basic concepts of Social Sciences**CO2 :** To explain the methods and methodologies of socialscienceand History **CO3:**Toapplythetheoriesofsocialsciencestosolvethe contemporarysocialproblems.
2	**SEMESTERI** **VocationalCoreHY1VOT13-** IntroductiontoArchaeology	**CO1 :**To familiarize the basic concepts of Archaeology**CO2 :** To explain thehistorical evolution of archaeology inIndia **CO3:**ToapplythebasicmethodsandtheoriesinArchaeology
3	**SEMESTERI** **ComplementaryCourse** Economics1	**CO1 :**Tofamiliarizethe basicconceptsof Economics **CO2:**Tounderstandthemethodsofeconomics **CO3:**Toapply thebasic economicsin humanlife
4	**SEMESTERII** **Core Course: HY2CRT02-** Understanding Early India: FromHuntingGattererstoLandGrants	**CO1 :**To explore the basic contours of pre-history and historicperiodsin Early India **CO2 :**.To understand the various social and political constructionsofearly Indian society **CO3:**Toanalyzethevariousaspectsofearly Indiansociety throughthescholarshipofaninter-disciplinarynature.
5	**SEMESTERII** **VocationalCourseHY2VOT14-** MethodsinArchaeology	**CO1 :**To explore the basic exploration and excavation methodsinArchaeology **CO2:**.TounderstandArchaeologicaldocumentationandapplicationof archaeologicaldating **CO3:**Toanalyzevariouspreservation and conservation techniquesinarchaeologicalremains
6	**SEMESTERII** **ComplementaryCourse** Economics2	**CO1 :**To familiarize the basic concepts of Indian Economy**CO2 :** To understand the basic concept of public Economics**CO3:**TofamiliarisethepoliciesandprogrammesofIndian Economy

7	**SEMESTERIII** **Core Course: HY3CRT04-** Cultural trends in pre-colonialKerala	**CO1 :**To familiarize the ecology and environment of ancientKeralaand south India **CO2:**Toillustratethesocialformationsofpre-colonialKerala. **CO3 :**To analyze the transformations of Keralan society in the ageofagrarian expansion, maritimetradeand stateformation
8	**SEMESTERIII** **VocationalCourse** **HY3VOT15-**BasicsofMuseology	**CO1 :**To familiarize the basic concepts of museums andmuseology **CO2 :**To understand various kinds of museums and theirfunctionalaspects **CO3:**TofamiliarizetheconceptofMuseumorganizationsand variouslegislationsrelatedtoit
9	**SEMESTERIII** **ComplementaryCourse** BasicsofIndianNumismatics1	**CO1**: To familiarize the origin and antiquity of ancient IndianCoinage **CO2:**ToUnderstandvariousIndiancoinseriesfromitshistoricalandarchaeologicalpoint of view **CO3:**Toanalysevarious manufacturingtechniquesofcoins in relationearlyseries
10	**SEMESTERIV** **CoreCourse-HY4CRT05** MakingofmodernKerala	**CO1:**TounderstandthenumerouscomplexitiesintheformationofmodernKerala **CO2:**ToanalyzethevarioussocialandreligiousreformmovementsofmodernKerala **CO3:**To exposethestudentsto themodern andpost-modern trendsthatthe regionis experiencing.
11	**SEMESTERIV** **CoreCourse:HY4CRT06** ResearchingthePast	**CO1:** To familiarize the students with basic research concepts andtechniques **CO2:**Tounderstanddifferentmethodsoftextual criticisms **CO3:** To equip the student to practically do the finalsemesterdissertation
12	**SEMESTERIV** **VocationalCoreHY4VOT16-** MethodsofMuseology	**CO1 :**To explore the basic concepts of museums administrationandmanagement **CO2 :**To understand various kinds of museums architecture andits kinds **CO3:**Tointroducestudentsthebasicconceptson preservationand conservationof archaeologicalremains

13	**SEMESTERIV** **ComplementaryCourse** BasicsofIndianNumismatics2	**CO1**:Toanalyzethe historicalcontextofIndian Coins **CO2**:Developcriticalthinkingandskillsininterpretingthecoins**CO3** : To identify and classify coins andtheir culturalsignificance
14	**SEMESTERV** **Core Course: HY5CRT08-** India:NationintheMaking	**CO1 :**To familiarize the concept of Nation state in the light ofBritishconquestof India **CO2 :**To discuss the major impact of British rule in India and thesubsequentmovements for freedom **CO3 :**To analyze the the transition from religious imagination toperceptionof a secularstate
15	**SEMESTERV** **Core Course: HY5CRT 10 -** EnvironmentalStudiesandHumanR ightsinHistoricalOutline	**CO1 :**To understand the emerging paradigms in the area ofenvironmental studies and how it linked with the rights of humanbeings. **CO2:** To create awareness about environmental problems amongpublicat large **CO3:** To analyze the various resources and their problemsarisingoutof their degradationand the major threatsfor sustainabledevelopment
16	**SEMESTERV** **Core Course:** **HY5CRT07**InheritanceandD eparturesinHistoriography	**CO1**: To study the historiographical trends in different historicalepochs **CO2**:Toimproveunderstandinginhistoricalperspective **CO3**:Toenablethestudenttolearnhistoricalwritings
17	**SEMESTERV** **VocationalCoreHY5VOT17-** SystemsofMuseology	**CO1 :**To familiarize field conservation techniques andpreservation **CO2 :**To understand museum display measures and itsimplications **CO3:**To analyzethe museumpublic facilityand visitorsbehavior andresponses evaluation
18	**SEMESTERV** **Open Course:** **HY5OCT01**Introducing EnvironmentalHistory	**CO1:** To study the essential concepts and concerns inenvironmentalhistory of India **CO2:**Toenhanceknowledgeinbasicsofenvironmentintheconte xtof colonialism **CO3:**Understandthebasicsofenvironmental methodologyand roots of crisis

19	**SEMESTERVI CoreCourse:HY6CRT13-** CapitalismandColonialism	**CO1 :**To trace the emergence of capitalism in Europe andsubsequentscramble forcolonies **CO2 :**To identify the major debates of transition from feudalismto capitalism and the subsequent expansion of capitalism as aworldsystemin thelight of industrialrevolution **CO3 :**To equip the students to analyze the nature ofimperialistpoliciesinthelightofoverallprogressofthe erstwhilecolonies inthe post-colonialperiod
20	**SEMESTERVI CoreCourse:HY6CBT03** GenderStudies	**CO1 :**To explore the various stages in the emergence of Genderstudiesas a discipline **CO2 :**To analyze the social constructions of Gender**CO3:** To equip the students to raise questions against theconventionalgenderstereotypescenteredaroundmale femaledichotomy
21	**SEMESTERVI CoreCourse:HY6CRT11** MakingofContemporaryIndia	**CO1**: to make aware the different historical process involved in theIndianindependence movement **CO2**: to study the history of the economic development of thecountry **CO3**:To identifythe challengesin thedevelopmentofthe country
22	**SEMESTERVI** Core Course: HY6CRT12UnderstandingM odernWorld	**CO1**: to study the imperialistic expansion and the resultantchangesin the world **CO2:** To draw cause and effect of wars in the world history**CO3**: to illustrate the role of new world organizations andtheirrole in the internationalscenario
23	**SEMESTERVI VocationalCoreHY6VOT18–** Understanding Ancient IndianhistorythroughArchaeolo gy	**CO1:**Tofamiliarizethesourcesofancienthistory anddifferentepigraphicalsources **CO2:**TounderstandvariousNumismaticsseriesofancientIndia **CO3 :**To explore various types and styles of ancientIndiantemple architecture

B.VocTourismandHospitalityManagement

PROGRAMMESPECIFICOUTCOMES(PSO)
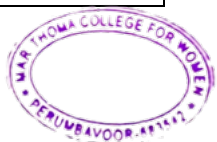
PSO1 UnderstandtheimportanceofIndian,Globalaspectsintourism business

PSO2 DemonstrativeeffectiveCommunicationSkills

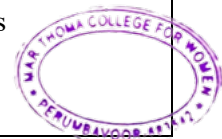**PSO3** To applying managerial, financial and technical skills in the field of tourism and hospitalityindustry

COURSEOUTCOMES

Sl. No	NameofthePaper	CourseOutcomes
		Afterthecompletionofthecourse,thestudentswillbe
1.	**SEMESTER1** General BOCG101: Listening & SpeakingSkillsin English	CO1: To introduce the students to the speech sounds ofEnglish in order to enable them to listen to English andspeakwithglobal intelligibility. CO2:ToimpartbasicknowledgeofEnglishlanguagegrammart o the students CO3: To enable the students to speak English confidentlyandeffectively in awide variety ofsituations.
2.	**SEMESTER1** General BOCG102: Information Technologyfor Business	CO1:TounderstandandappreciatethecriticalroleofInformationSy stems in today's organizations CO2:To abasic knowledgeabout computerhardware CO3: The basic understanding about the theory and practicalaspects of Word Processing Package, Spreadsheet Package andPresentationPackage
3.	**SEMESTER1** General THM1GTO3: Management Process&OrganizationalBehaviour	CO1: To encompasses the core components of managementincluding planning, organizing, leading and controlling theorganizations. CO2: The Importance of women rights and safety in an organisationCO3:To acquiredealing with physicaland verbal harassments
4.	**SEMESTER1** Skill THM1GT04: Hospitality & ResortManagement	CO1**:** To understand the classification and categorization of hotel.CO2: To understand the operating & non-Operating departments inahotel CO3: To introduce hospitality sector to the students and to give anunderstandingofthelinkbetweenHospitalityandTourismindustries
5.	**SEMESTER1** Skill THM1ST05:TourismProducts&Tour Guiding	CO1: To ensure that students have an in-depth knowledge abouttourismproduct and its features CO2: To give an overview of all the tourism resources available inIndia CO3:To understandthe duties andresponsibilities of atour guide

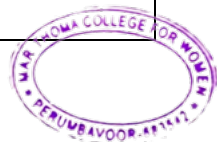| 6.	**SEMESTER1** Skill THM1SP06: Destination Visit &Report	CO1:To experience thetourism industry. CO2: To make observations from the point of view of tourists.CO3:To getpracticalexposure in destinations.
7.	**SEMESTER2** General BOCG20:WritingandPresentationsSkillsin English	CO1:Toawareofthefundamentalconceptsofcriticalreasoning and to enable them to read and respond critically,drawing conclusions, generalizing, differentiating fact fromopinionand creating their own arguments. CO2:Todevelopingappropriateandimpressivewritingstylesfor various contexts. CO3:Torectifystructuralimperfectionsandtoeditwhattheyhave writtenandmakingacademicpresentationseffectivelyandimpressively.
8.	**SEMESTER2** General THM2GT02: Principles andPracticesof Tourism	CO1: To have a holistic understanding of the concept of tourism.CO2:Fairunderstandingdifferentformsoftourism,travelmotivations,varioustourismsystems,tourismplanning,impactsofTourism. CO3:To understand practicalaspects of Tourism
9.	**SEMESTER2** General THM2GT03: Front OfficeManagement	CO1: To understand the practical aspects of front office operationinHotel. CO2:IndepthknowledgeaboutFrontOfficefunctionswhichinclude reservations, registrations, handling customers by followingstandardetiquettes. CO3: To know about front office accounting, methods of handlingguestaccount
10.	**SEMESTER2** Skill THM2ST04: HousekeepingOperations	CO1: The basic understanding of the housekeeping department anditsfunctions. CO2:The layout ofhousekeeping department CO3:Toknowabout co-ordinationwithotherdepartments
11.	**SEMESTER2** Skill THM2ST05:Meet&Greetservice	CO1:Tohelpstudentshaveadetailedknowledgeabouttherolesandresponsibilities of a Meet&Greet staff CO2:Tomakestudentsunderstandtheimportanceofacquiringsoft skills and professionalism while interacting with guestsCO3:Toknowabouteffectivecommunicationetiquettes
12	**SEMESTER2** Skill THM2SP06:HospitalityInternship	CO1: To experience the hospitality industry and its functioning.CO2:Tocloselyobservehowthehospitalitystaffsimparttheirdutiesprofessionally. CO3:To getpracticalexposure ofHospitality Industry
13	**SEMESTER3** General BOCG301: Principles ofManagement	CO1: The key knowledge, skills, and competencies in variousaspectsof management CO2: To encompasses of the core components of managementincludingplanning,organizing,leadingandcontrollingtheorganizations. CO3:To understand nature andprocesses of management
14	**SEMESTER3** General THM3GT02: Foreign Language(French/German)	This course aims at enabling students to have small conversations ina foreign language preferably French or German. This will result inan added advantage to the students when they work as tourguides/escortsin future.

15	**SEMESTER3** General THM3GT03: Travelgeography	CO1:ThebasicknowledgeaboutGeography CO2: Tourist Destination and attractions of major countries (inbrief):Africa and MiddleEast, Europe CO3:TheGeographicalcomponentsandtourismdevelopment
16	**SEMESTER3** Skill THM3ST04:TourismMarketing	CO1:ToimbibethestudentswiththeknowledgeofServiceMarketing CO2:Tohelpstudentstounderstandhowmarketingmixandpromotionsare done in tourism marketing. CO3:Italsofocusesonthemarketingstrategiesinthenewdigitalage
17	**SEMESTER3** Skill THM3ST05: TravelAgencyandTourOperation Business	CO1:Togiveanunderstandingofthefunctionsofatravelagencyand a tour operation CO2:ToknowaboutVisaprocessing,TourpackagingandItinerarypreparation CO3: To familiarize the students with regards to the formalitiesforsettingup atravel agency.
18	**SEMESTER3** Skill THM3SP06: Responsible Tourism	CO1:TounderstandingofCommunitybasedtourismandsustainable-ecotourism. CO2:Italsoensuresundertakevariouscommunity-basedactivitieswhichinturnresultinabetterunderstandingofResponsibleTourism CO3:To know about differentresponsible tourismprojects
19	**SEMESTER4** General BOCG401: Soft skills andpersonalitydevelopment	Thecourseaimstocauseabasicawarenessaboutthesignificanceofsoftskillsinprofessionalandinter-personal communicationsandfacilitateanall-rounddevelopmentofpersonality
20	**SEMESTER4** General THM4GT02:TourismEthics,LawsandRegulations	CO1: To ensure that the students get basic knowledgeregarding the rules and regulations concerning various sectorsoftourism industry CO2: To familiarize with the various Government Acts whicharerelated to tourismsector CO3:To understand thelegal aspects ofTourism business and regulationoftravel relatedauthority
21	**SEMESTER4** General THM4GT03:Sales,AdvertisingandGuestRelations In Tourism	CO1: To understanding of various strategies and methods of salesmanagementin tourismindustry. CO2: To know about the different methods available foradvertising. CO3: The concepts of Customer Relationship Marketing and GuestRelationsin Tourism.

22	**SEMESTER4** Skill THM4ST04:EventManagement	CO1: To introduced to the concept of Event Management and learnthestep-by-step process of event management CO2: The insight into the entrepreneurial opportunities in eventmanagementsector. CO3:To understand thevarious types of eventsand its operations
23	**SEMESTER4** Skill THM4ST05:TourPackagingandItineraryPreparation	CO1: To acquire necessary knowledge and skill to prepare differentitinerariesof Domesticand International CO2:To know the concept of tour cost
24	**SEMESTER4** Skill THM4SP06: Travel and TourInternship	Togeta practical exposurein tour operations.
25	**SEMESTER5** General BOCG501:EnvironmentalStudies	CO1:Tobringinproperawarenessamongthe Environmenta lIssues CO2:Tobuildapro-environmentalattitudeandabehaviouralpatternin societybased on sustainablelifestyles CO3: To impart basic knowledge on pollution and environmentaldegradation
26	SEMESTER5 General THM5GT02:ManagerialAccountsand Finance In Tourism	CO1: To introduce the concept and principles ofaccounting CO2: To give an overview of Financial Management andCapitalManagement CO3: To understand the basic concept and method offinancialmanagement.
27	SEMESTER5 General THM5GT03: Human ResourceManagem ent	CO1: To introduce the concept of Human ResourceManagement CO2: To familiarized with the various functionalities ofHRM CO3: To understand the practical aspects of HRmanagementand its function

28	SEMESTER5 Skill THM5ST04:ChangingTrends&Opportunitiesin Tourism	CO1: The objective of this course is to give an overview oftourism industry at all levels with the aid of touriststatistics CO2: To impart knowledge to the students regarding thegovernmentpolicies on tourism sector CO3:Tounderstandthechangingtrendsintourism
29	SEMESTER5 Skill THM5ST05:DestinationPlanningandDevelopment	CO1: To impart an in-depth knowledge on DestinationPlanningand Development CO2: To give an understanding on the institutionalframework within which destination management takesplace CO3:Tounderstandplanningpolicyoftourismdevelopment.
30	SEMESTER5 Skill THM5SP06:StudyTourand Report	CO1:Thisenablesstudentstoanalyzetheexisting infrastructureandamenitiesoftourismdevelopmentandexaminefutureprospectusintourismpromotion CO2:Togetmoreexposureinvarioustouristdestinations
31	**SEMESTER6** General BOCG601: Entrepreneurship Development	CO1: To familiarize t the concept and overview ofentrepreneurshipwithaviewtoenhanceentrepreneurialtalent.CO2: To impart knowledge on the basics of entrepreneurialskills and competencies to provide the participants withnecessaryinputs for creation of new ventures. CO3: To explore new vistas of entrepreneurship in 21stcenturyenvironmenttogenerateinnovativebusinessideas
32	**SEMESTER6** General THM6GT02:ResearchMethodologyinTourism	CO1: To introduce the concept of Research Methodologyand familiarize the step-by-step process of researchmethodology CO2: To give an insight to the students regarding majorareasof tourismresearch
33	**SEMESTER6** General THM6GT03:Airfares,Ticketing&AirportManagement	CO1: The students are introduced to the basics of Airfares,Ticketingand Cargo services. CO2: An overview of airport management and aviationindustryof India isgiven to students

34	**SEMESTER6** Skill THM6SP04:Project/Dissertation	CO1:Todemonstratetheirownwork. CO2: To produce a mature oral presentation of anon-trivialtourism topic. CO3:To investigatetheir awarenessin relation tothe **widerresearchfield.**
35	**SEMESTER6** Skill THM6SP05: Travel and TourInternship	Togeta practical exposurein tour operations.

B.Voc Fashion Technology and Merchandising

UNDER GRADUATE PROGRAMME SPECIFIC OUTCOMES

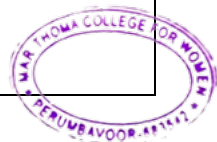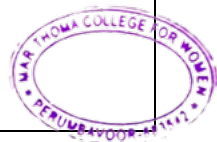|	After the completion of the programmer, the students will be able to:
PSO1	.This would enable the graduates completing B.Voc. to make a meaningful participation in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge.
PSO2	The proposed vocational programme in B.Voc Fashion Technology and Merchandising will be a judicious mix of skills, professional education related to Fashion Designing, Merchandising, Visual Merchandising, Entrepreneurship development and also appropriate content of general education.
PS03	To provide flexibility to students by means of pre-defined entry and multiple exit points. To integrate NSQF within the undergraduate level of higher education in order to enhance

COURSE OUTCOMES

Sl. No.	Name of the Paper	Course Outcomes
		After the completion of the course, the students will be able:
1	**SEMESTER – I** BOCG101 LISTENING AND SPEAKING SKILLS IN ENGLISH	**CO1 :** To introduce the students to the speech sounds of English in order to enable them to listen to English and speak with global **CO2 :** To enable the students to speak English confidently and effectively in a wide variety of situations. **CO3 :** To help the students to improve their reading efficiency by refining their reading strategies.
2	**SEMESTER – I** BOCG102: IT FOR BUSINESS	**CO1:** The objective of the course is to help the student understand . **CO2:** To appreciate the critical role of Information Systems in today's organizations **CO3:** To help the students to improve their Typing speed.
3	**SEMESTER – I** FTMG103 INTRODUCTION TO FASHION BUSINESS	**Co1:**To introduce students to growth of fashion industry. **Co2:**To familiarize students with all major international and Indian Fashion designers, their styles of work and fashion related terms. **CO3:**To create awareness amongst students about the domestic and export garments industries and the various career opportunities and diversification possibilities in the field of fashion.
4	**SEMESTER – I** FTMS9104 TEXTILES & ORNAMENTATION	CO1:To gain knowledge about textile fibers and their uses. CO2: To develop an understanding about various kinds of fabrics, their structure and the utility. CO3: To impart knowledge about Textile dyeing and printing.
5	**SEMESTER – I** FTMS105 INTRODUCTION TO	CO1:To introduce students to basic sketching techniques and aspects of human anatomy & importance of fashion illustration. CO2:Drawing a fashion figure or a Croquis with proportion & body

		movements various poses required for fashion illustration. CO3:Various mediums for sketching and rendering life forms.
6	**SEMESTER – I** FTMS106 PROJECT I- HOME FURNISHING	CO1:To develop a home furnishing collection and adorn it with any of the surface ornamentation techniques. CO2:Students must do this project individually. CO3:Project should be worked out through various production stages under the guidance and approval of the faculty/faculties.
7	**SEMESTER II** BOCG201: WRITING AND PRESENTATION SKILLS IN ENGLISH	CO1:To assist the students in developing appropriate and impressive writing styles for various contexts. CO2:To help students rectify structural imperfections and to edit what they have written. CO3:To equip students for making academic presentations effectively and impressively.
8	**SEMESTER II** FTMG9202 WORLD COSTUME-1	CO1: To Identify costumes with reference to time period and culture. CO2: To Create the realization that costumes, and fashion history lies in the excavated past of archaeology and art. CO3:To Understand the reason of costume evolution from necessity driven basics to flamboyant styles.
9	**SEMESTER II** FTMG9203 GARMENT EQUIPMENT AND MACHINERY	CO1: To understand various textile industry machines, CO2:To operating mechanism and sequences of garment construction methods. CO3:To know more equipments and machineries.
10	**SEMESTER II** FTMS204 ELEMENTS OF FASHION DESIGN	CO1: To familiarize students with the design elements and principles and its application in fashion designing. CO2:To Development of research techniques for individualistic concepts. CO3:Development of surface rendering techniques, build understanding to visualize different features of garment collectively and understand technical details to produce accurate technical.
11	**SEMESTER II** FTMS9205 BASIC PATTERN MAKING & GARMENT CONSTRUCTION	CO1: familiarize students with tools and methodologies of pattern making and sewing. CO2:To understand the language of pattern making and develop the ability to create designs through the flat pattern method. CO3:To enable the students to draft basic bodice block, skirt block and sleeve block.
12	**SEMESTER II** FTMS9206 INTERNSHIP-I - GARMENT MAKING UNIT	CO1: To know the guidance of a recognized supervisor to understand various steps and techniques involved in creation of a garment making. CO2:Toget a certificate to prove their identity. CO3:To know the variance of garment making.
13	**SEMESTER III** BOCG301 PRINCIPLES OF MANAGEMENT	CO1: To know the basic introductory and foundational management course. CO2: To enable the students key knowledge, skills, and competencies in various aspects of management. CO3:The course encompasses the core components of management including planning, organizing, leading and controlling the organizations.
14	**SEMESTER III** FTMG302 FASHION MERCHANDISING AND MARKETING	CO1: To develop and understanding of the merchandiser, and merchandising departments in the apparel industry. CO2:Understand the potential and limitation of textile industry from a fashion designers' point of view. CO3:To Developing the expertise for appropriate selection of fabrics,trims,and other materials keeping the design/ style/ market in perspective.
15	**SEMESTER III** FTMG303 WORLD COSTUME II	CO1: Identify costumes with reference to time period and culture. CO2: Create the realization that costumes, and fashion history lies in the excavated past of archaeology and art. CO3:Understand the reason of costume evolution from necessity driven basics to flamboyant styles.
16	**SEMESTER III** FTMS304 DRAPING	CO1: To teach the basic principles of draping and to construct garments using draping CO2:To know the variance of draping. CO3:To know the different pathways of draping.

17	**SEMESTER III** FTMS305 -PATTERN MAKING, GRADING AND GARMENT CONSTRUCTION- WOMEN'S WEAR	CO1: To teach the students basic fundamentals of kid's wear and Women's worn. CO2:To enable students to do the proper layout of paper drafts on the fabric. CO3: To make maximum usage of fabric minimum wastage.

18	**SEMESTER III** FTMS306 -PROJECT II - WOMEN'S WEAR	CO1: To Design, make a Pattern, and Construct a Women's Wear. CO2: To get more confidence to do a womemens wear. CO3:To know the variance of women's wear.
19	**SEMESTER IV** BOCG401 SOFT SKILLS AND PERSONALITY DEVELOPMENT	CO1:The course aims to cause a basic awareness about the significance of soft skills in professional . CO2: inter-personal communications CO3: facilitate an all-round development of personality.
20	**SEMESTER IV** FTMG402 EXPORT PROCEDURES AND DOCUMENTATION	CO1: To develop an understanding of various organizational structures and function of various departments. CO2:To know the export procedure with different industries. CO3: To understand the potential and limitations of textile industry from a fashion designers' point of view.
21	**SEMESTER IV** FTMG403 ADVANCED FASHION ILLUSTRATION	CO1: Introduction to Various medium for stylization of croqui. CO2:To make the students capable to create their own style of illustration. CO3:To train students in colour rendering in different media keeping fabric qualities.
22	**SEMESTER IV** FTMS404 COMPUTER AIDED DESIGN	CO1: To introduce students to essential software's. CO2:To know the detailing of coral draw CO3:To know illustrater.it helps for advanced developments in CAD.
23	**SEMESTER IV** FTMS405 PATTERN MAKING AND GARMENT CONSTRUCTION - KIDS WEAR	CO1: To teach the students methods of taking body and form measurements for children's wear. CO2:To teach the construction methods for kid's wear CO3: To Design, make a Pattern, and Construct a kid's wear
24	**SEMESTER IV** FTMS406 INTERNSHIP – II- EXPORT HOUSE	CO1: an apparel exporting firm to understand various steps and techniques involved in exporting. CO2:To get a certificate to prove their identity. CO3:To know the variance of Exporting.
25	**SEMESTER V** BOCG501 ENVIRONMENTAL STUDIES	CO1: To build a pro-environmental attitude CO2:behavioural pattern in society based on sustainable lifestyles. CO3:To impart basic knowledge on pollution and environmental degradation.
26	**SEMESTER V** FTMG502 FASHION FORECASTING	CO1: To enable student's knowledge about prediction of upcoming trends, colours, texture, etc. CO2:To develop their forecasting skill. CO3:To know the trends of fashion.
27	**SEMESTER V** FTMG503 ART APPRECIATION	CO1:To induce the students and appreciation of art through ages & its impact upon lifestyle & fashion. CO2: To create innovative paintings inspired by the characteristics of world art. CO3:To know the application of art in fashion.
28	**SEMESTER V** FTMS504 ACCESSORY DESIGNING	CO1: To teach the students the art of accessory designing. CO2: To develop their creativity. CO3:To know more variety of accessory and development.
29	**SEMESTER V** FTMS505 PATTERN MAKING AND GARMENT CONSTRUCTION- MEN'S WEAR	CO1: : To teach the students basic fundamentals of men's wear. CO2:To enable students to do the proper layout of paper drafts on the fabric . CO3:To make maximum usage of fabric with minimum wastage.

30	**SEMESTER V** FTMS506 PROJECT III- KIDS WEAR	CO1: To Design, make a Pattern, and Construct a Women's Wear. CO2: CO2:To get more confidence to do a Kids wear. CO3:To know the variance of Kids wear.
31	**SEMESTER VI** BOCG601 ENTREPRENEURSHIP DEVELOPMENT	CO1: : To familiarize the students with the concept and overview of entrepreneurship with a view to enhance entrepreneurial talent. CO2: To impart knowledge on the basics of entrepreneurial skills and competencies to provide the participants with necessary inputs for creation of new ventures. CO3:To explore new vistas of entrepreneurship in 21st century environment to generate innovative business ideas
32	**SEMESTER VI** FTMG602 COST ACCOUNTING FOR APPAREL INDUSTRY	CO1: To understand the cost factors and calculation methods CO2:To know the accounting. CO3:To develop the skills.
33	**SEMESTER VI** FTMG603 VISUAL MERCHANDISING	CO1: To understand the various aspects Visual Merchandising. CO2:To know more details about boutique management. CO3:To know more about the props .
34	**SEMESTER VI** FTMS604 THEMATIC LINE DEVELOPMENT	CO1: : Each student will conceptualize and develop a collection of at least five garments. CO2:To know the detailing for selection of a thematic lines. CO3:To know more ideas about the new style,collections,trends etc.
35	**SEMESTER VI** FTMS605 PORTFOLIO PRESENTATION	CO1: : To help students to prepare a competitive portfolio which include best of their skills and talents. CO2:To develop the creativity. CO3:To prepare the final collections.
36	**SEMESTER VI** FTMS606 INTERNSHIP – III - VISUAL MERCHANDISING	CO1: : To understand the various aspects Visual Merchandising. CO2: To get a certificate to prove their identity. CO3:To know the variance of visual merchandising.