

The M.D.T.Hindu College, Tiruenveli

Internal Quality Assurance Cell (IQAC)

B.Com

Course Outcome

Research Methodology

[SMCO54]

- To understand the Basic Concepts of Research and its methodologies.
- To encourage the students to conduct researcher to solve various problems.
- To impart knowledge regarding the collection of data, analysis and application of various statistical tools.
- To enable them to acquire knowledge regarding the preparation of research report.
- To organize and Conduct research in a more appropriate manner.

Human Resource Management

[SMCO34]

- To enable the students to acquire knowledge about Recruitment, Training and Performance appraisal of employees.
- To teach the students about the importance of human Resource management.
- To impart knowledge about the methods of workers participation as management.
- To know the methods to redress the grievances of employees.
- To study about the importance of Human Resource.
- To study the techniques of performance appraisal of employers.

Entrepreneurship Development

[SMCO4A]

- To develop and strengthen the entrepreneurial, quality among the students.
- To know the source of help and support available for starting a small scale industry.
- To provide knowledge about writing a new project proposal.
- To Nurture the desire of starting a new business among the students.

The M.D.T. Hindu College, Tirunelveli

Unaided Course

Department of English

III Semester – Syllabus-Objectives

Part II English

1. To strengthen the language skills.
2. To Develop a Humanistic outlook on life.
3. To Understand the human existence and the society in which they live.
4. To develop the vocabulary.
5. To sharpen their analytical faculty.

History of English Literature

1. To give a clear and systematic understanding of the National changes and development that influenced British Literature.
2. To familiarize the students about the Historical movements that influenced the transformation of literary taste and standards
3. To enrich their knowledge about Literary texts.
4. To establish the detail historical study of the author's and their works.
5. To taste the literature with the better understanding.

British Poetry

1. To provide a historical perspective of British Poetry.
2. Interpretation and appreciation of the selected texts from the genre of poetry.
3. To improve their understanding through British Poetries.
4. To appreciate the rhyme , rhythm and style of the poem.
5. To develop their aesthetic sense.

Caribbean Literature

1. To provide a socio-cultural perspective of Caribbean writings .

2. Interpretation and appreciation of the selected texts.
3. To understand the culture of Caribbean people.
4. To understand the historical issues of enslavement and forced migration of the Caribbean people.
5. To know about their social and cultural themes of tradition, landscape and culture.

Phonetics

1. To import proficiency in pronunciation and oral communication.
2. To use appropriate language skills.
3. To enhance various communicative functions.
4. To interpret the skills in different Socio-Cultural contexts.
5. To enhance our Employability skills.

II B.C.A

SEMESTER: III

SUBJECT NAME : Tally Lab

SUBJECT CODE : SACAP4

OBJECTIVES:

- To maintaining account through the tally software.
- To understanding company creation, ledger, journal and report through the tally software.

II B.C.A

SEMESTER: III

SUBJECT NAME : Microprocessor

SUBJECT CODE : SSCA4A

OBJECTIVES:

- To understand assembly language program.
- To develop assembly language program from the basic.
- To learning about the different microprocessor and components.

Information Security SMCS42

Objective: Focuses on the overview of information security, the tools and techniques used to secure information and the procedures and practices that must be followed by organizations to ensure information security.

CO1: Basics of information security, Information security threads

CO2: Viruses and backup techniques and uses

CO3: Counter measures for information security breach, Risk management

CO4: Security policies, Intrusion detection

CO5: Security audit and policies

Programming with PHP and MYSQL SSCSW3A

Objective: To understand the concepts of open source, To learn and use open source database management system MYSQL, To create dynamic web pages and websites, To connect web pages with database

CO1: Introduction to PHP, conditions and looping structures

CO2: Arrays and functions in PHP

CO3: Various file handling techniques

CO4: MYSQL table operations

CO5: PHP with MYSQL linking

Dot net technologies JMCS53

Objective: To highlight the features of ASP.net and apply it to develop various applications, To understand the concepts of .net framework as a whole and the technologies that constitute the framework, To make the students to set experience and be ready for the large scale projects in IT industry

CO1: .net platform and the web

CO2: Working with ASP.net

CO3: Using the .net framework class library

CO4: Building .net managed components for computing

CO5: Accessing data with ADO.net , Securing .net applications

Android programming SSCS4A

Objective: To learn the fundamentals of Android programming using Android SDK

CO1: Getting started with Android programming, Using Android studio for android development

CO2: Understanding activities, framework, intents
CO3: Getting to know the android user interface
CO4: Designing user interface with views
CO5: Displaying pictures and menus with views, Data persistence

Dot net practical JMCSP4

Objective: To develop simple applications using .net

CO1: Develop Home page using web controls, user control in web form

CO2: Simple multiple choice questionnaire, input through web form

CO3: Validate the data using fieldvalidator and rangevalidator

CO4: Using Web services, photo gallery

CO5: Send email from ASP.net

Computers for Digital Era (Common to all UG courses) SCDE4A

Objective: To create the awareness about the digital India among the student community, To make the student to understand the role of computer in the day to day living, To create awareness about the e-learning and security issues

CO1: Fundamentals of computers

CO2: Types of software and office automation

CO3: Introduction to internet services and mobile applications

CO4: E-governance in India

CO5: E-learning and MOOC

THE M.D.T. HINDU COLLEGE, TIRUNELVELI

(Learning outcome/Acquisition)

Department: Tamil

Course: M.Phil

Semester: I

**Sub Name: ஆராய்ச்சி நெறிமுறைகள்
11**

Subject Code: KTLC

ருவை 1 :ஆய்வியல், ஆய்வுப் பொருள், தலைப்புத்தேர்வு பற்றி மாணவர்கள் அறிதல்.

ருவை 2 : கருதுகோள், அதன் வகைகள், ஆய்வாளரின் பண்புகள் மற்றும் வகைப்படுத்துதல் பற்றிய செய்திகளை மாணவர்கள் உணர்ந்து கொள்வார்கள்.

ருவை 3 : தரவுகளைத் திரட்டுதல் பற்றியும், துணைமை ஆதாரங்கள் பற்றியும் மாணவர்கள் அறிதல், துணை நூற்பட்டியல் தயாரிப்பதையும் அறிதல்.

ருவை 4 : வினாநிரல் சேகரித்தல், களஆய்வின் இன்றியமையாமை, கருதுகோளின் பயன்பாடு போன்றவற்றை மாணவர்கள் அறிதல்.

ருவை 5: ஆய்வேட்டின் அமைப்பு, ஆய்வேட்டின் நடை, குறியீடு, அடிக்குறிப்பு போன்றவற்றை மாணவர்கள் அறிதல்.

Department: Tamil

Course: M.Phil

Semester: I

**Sub Name: ஆராய்ச்சி அணுகுமுறைகள்
KTLO 12**

Subject Code:

Unit 1 : அணுகுமுறை பற்றிய விளக்கம், அணுகுமுறையின் வகைகள், வேறுபாடு பற்றி மாணவர்கள் அறிதல்.

Unit 2: அணுகுமுறையின் பயன்பாடு, தமிழ்இலக்கியத்தில் அணுகுமுறையின் தேவை பற்றி ஆய்வாளர்கள் அறிதல்.

Unit 3: அணுகுமுறையின் அடிப்படையில் சமூகம் எவ்வாறு செயல்படுகிறது என்பதை மாணவர்கள் அறிந்து கொள்வார்கள்.

Unit 4: மேலை நாட்டினரின் ஒப்பியல் அணுகுமுறை பற்றி அறிதல்

Unit 5: வரலாற்றியல் அணுகுமுறை மற்றும் மானிடவியல் அணுகுமுறை பற்றிய செய்திகளை மாணவர்கள் தெரிந்து கொள்வார்கள்.

Department: Tamil Course: M.Phil

Semester: I

**Sub Name: பெண்ணியமும் இலக்கியமும்
13**

Subject Code: KTLO

Unit 1: பெண்ணியத்தின் கருத்தியலை மாணவர்கள் அறிந்து கொள்தல்

Unit 2: பெண்ணியத்தின் தோற்றம், வேறுபாடுகள் மேலூட்டு அறிஞர்களின் விளக்கம் ஆகியவற்றை மாணவர்கள் அறிதல்.

Unit 3: பாலினம், உடல்மொழி, பெண்ணிய விமர்சனத்தின் முக்கியத்துவத்தை மாணவர்கள் புரிந்துகொள்தல்.

Unit 4: பெண்ணிய எழுத்தாளர்களின் படைப்புகளில் பெண் எழுத்து பற்றி அறிந்து கொள்தல்

Unit 5: பெண்ணியப் படைப்பாளிகளின் படைப்புகள் பற்றி மாணவர்கள் திறனாய்வு செய்தல்

M.Phil Tamil PROJECT

1. The Research scholars will critical analyses of the novel and short stories.
2. The Research scholars will create new hypothesis

Department: Tamil Course: I M.A

Semester: II

**Sub Name: பக்தி இலக்கியம்
Code:**

Subject

1. சைவ அடியவர்களில் திருஞானசம்பந்தர், திருநாவுக்கரசர், சுந்தரர், மாணிக்கவாசகர் ஆகியோரின் குறிப்பிட்ட பாடல்களின் கருத்துக்கள் மூலம் சைவசமயச் செய்திகளை அறிதல்.
2. பெரியாழ்வார், ஆண்டாள், குலசேகராழ்வார், திருப்பாணாழ்வார் நால்வரின் பாடல்களால் வைணவ சமயம், பிற ஆழ்வார்கள குறித்து அறிதல்.
3. கிறித்தவக்கவிஞர் எச்.ஏ.கிருஷ்ணபிள்ளையின் இரட்சண்ய யாத்திரிகம், இஸ்லாமியப் புலவர் செய்குதம்பிப்பாவலர் இன்னிசைப்பாமாலை ஆகிய பாடல்களால் கிறித்தவம், இஸ்லாமியம் குறித்த செய்திகளை அறிதல்.
4. பத்ரகிரியார், அருணகிரி ஆகியோரின் சமயப்பாடல்களால் பக்தி மார்க்கத்தை தெரிந்து கொள்கிறார்கள்.

மேலும், பக்தியின் சிறப்பையும், உண்மையையும் உணர்ந்து கொள்கிறார்கள்.
குறிப்பாக, மாணவர்களிடையே

சமய நல்லிணக்கம் ஏற்பட இப்பாடம் பெரிதும் உதவுகிறது.

Department: Tamil Course: II M.A

Semester: IV

Sub Name: இலக்கிய மானுடவியல்

Subject Code:

1. இலக்கிய மானுடவியல் அறிமுகம், இனவரைவியலும் படைப்பாளியும், படைப்பும் இனவரைவியலும் ஆகியன அறிதல்
2. இலக்கிய இனவரைவியலின் வகை, இயல்பு குறித்த செய்திகளைத் தெரிந்து அதன் முக்கியத்துவத்தை உணர்தல்
3. படிமலர்ச்சி கோட்பாடுகள் அடிப்படைகள், கொள்கைகளை அறிந்து மொழி, இலக்கியப்படிமலர்ச்சியினை அறிதல்
4. திணைக் கோட்பாட்டின் சமூக அடிப்படைகள் - திணை அமைப்பும் இனவரைவியலும் - கவிதையியல் செய்திகளை அறிதல்
5. மானுடவியல் அடிப்படையில் சங்க இலக்கியத்தை நோக்கி உண்மைகளை தெரிந்து கொள்ளுதல்.

இலக்கிய வாசிப்பிற்கு மானுடவியலின் தேவையை உணர்ந்து கொள்கிறார்கள். அவ்வடிப்படையில் இலக்கியங்களை அர்த்தப்படுத்திக் கொள்கிறார்கள்.

Department: Tamil Course: II M.A

Semester: III

**Sub Name: மானுடவியல் அடிப்படைகள்
KTLE34**

Subject Code:

1. மானுடவியல் அறிமுகம் - சமுதாய மானுடவியல் - அமெரிக்க மானுடவியல் குறித்த செய்திகளை அறிந்து கொள்கிறார்கள்.
2. பண்பாடு குறித்த விளக்கம் அதன் உட்கூறுகள் தன்மைகள் ஆகியன குறித்து விளங்கிக் கொள்கிறார்கள்.
3. பண்பாட்டின் அமைப்பு, பொதுமைகளை உணர்ந்து கொள்கிறார்கள்
4. மாலினோஸ்கி, இராட்கிளிஃப், பிரௌன் ஆகியோரின் அமைப்பியல் கொள்கைகள் விளக்கம் பெறுகின்றன.
5. நவீனமயம், தொழில்மயம், நகரமயம், உயர்குடி, இந்து மயமாதல், பிறசமயதருவல் ஆகியன குறித்த புதுமைகள் அறிகிறார்கள்.
மேலும் இலக்கிய ஆய்வுக்கு மானுடவியல் தேவையை உணர்ந்து கொள்கிறார்கள்.

Department: Tamil Course: I M.A

Semester: I

**Sub Name: இக்கால இலக்கியம் கவிதையும் நாடகமும்
KTAM11**

Subject Code:

1. பாரதியார், பாரதிதாசன், சுரதா அறிமுகம் பெறல். அவர்களின் படைப்புகளில் ஒன்றை தெரிந்து கொண்டு, கருத்துக்களைப் பெறல்.
2. சமகாலத்தில் வாழ்ந்து கொண்டிருக்கிற கவிஞர்களில் படைப்புகளைத் தெரிந்து மாணவர்களும் கவிதை எழுதும் ஆற்றலைப் பெறல்..
3. தாமரை, இளம்பிறை, சக்திஜோதி, அமுதபாரதி ஆகியோரின் புதுக்கவிதைகளை புரிந்து கொண்டு புதுக்கவிதைகளின் களங்களைத் தெரிந்து கொள்வர்.
4. தமிழில் நாடகத்துறை நலிவுற்று வரும் இக்காலத்தில் நாடகத்துறையின் பன்முகத்தன்மையை அறிந்து கொள்கிறார்கள்.
5. தற்கால நாடகத்தின் போக்குகளை குணசேகரன் வேலுசரவணன், கிருஷ்ணமூர்த்தி ஆகியோரின் பலிஆடுகள், தங் கராணி, சரத்சந்திர சட்டோ பாத்தியாயரின் “ஷோட்சி” நாடகங்களை தெரிந்து கொள்ளல்.

Department: Tamil Course: I M.A

Semester: I

**Sub Name: ஊடகத்தமிழ்
PTLE12**

Subject Code:

அலகு 1 : அச்சுக்கலை தோற்றம் வளர்ச்சி பற்றிய அறிவு அவசியமாக தேவைப்படுகிறது. இதன் பணிகள் பொறுப்புகள், கடமைகள் பற்றி மாணவர்களுக்கு அறிதல் தேவை மேலும் மக்களாட்சியில் அச்சுக்கலையின் பங்கு குறித்து அறிய வைக்கின்றது.

அலகு 2 : திராவிட இயக்க இதழ்கள் பற்றியும் அவற்றிற்கான நெறிமுறைகள் பற்றியும் இதழ்களின் பகுப்பும் அமைப்பு முறையும் அவற்றிற்கான தணிக்கை முறைகள் குறித்து அறிவை மாணவர்களுக்கு கொடுக்கின்றது.

அலகு 3 : வானொலி தோற்றம் வரலாறு பற்றியும் ஒலிபரப்பு நிகழ்ச்சிகள் பற்றியும் அறிவினைத் தருகிறது. செய்திகள் எவ்வாறு சேகரிக்க வேண்டும் என்ற சூழலை புரியவைக்கின்றது. ஒலிபரப்பு நிலையங்கள் செயல்படுவிதம் பற்றி அறிய முடிகிறது. பிரச்சார் பாரதியினைப்பற்றி அறிய வழிவகுக்கிறது.

அலகு 4 : தொலைக்காட்சி வரலாற்றை அறிவதோடு அதன் நிகழ்ச்சிகளின் வகைகள் பற்றியும் நிகழ்ச்சி தயாரிப்பு பற்றியும் விளம்பரங்கள் பற்றியும் விளம்பரங்கள் தனியார் தொலைக்காட்சியில் செய்யும் ஆளுமை குறித்தும் அறிய வழிசெய்கிறது.

அலகு 5 : திரைப்பட வரலாறு பற்றியும் மத்திய அரசு செய்திதிரைப்படப்பிரிவு குறித்தும் அறியச்செய்கிறது. கல்விக்கான செய்தி திரைப்படங்கள் குறித்து மாணவர்களுக்கு அறிவிக்கிறது திரைப்பட மொழி குறித்த அறிவையும் திரைப்பட மாக்கப்பட்ட புதினங்கள், சிறுகதைகள் குறித்து மாணவர்களுக்கு அறிவு புகட்டப்படுகிறது.

Department: Tamil Course: II M.A

Semester: III

**Sub Name: உரைமரபு
Code:**

Subject

அலகு 1 : உரைகளின் தோற்ற வளர்நிலைகளை மாணவர்கள் அறிந்திடுதல்

அலகு 2 : பல்வேறு இலக்கண உரையாசிரியர்களின் உரைத்திறனை மாணவர்கள் தெரிதல்

அலகு 3 : பல்வேறு இலக்கிய உரையாசிரியர்களின் உரைத்திறனை மாணவர்கள் தெரிதல்

அலகு 4 : சமயநூல் உரையாசிரியர்களின் உரைத்திறனை மாணவர்கள் புரிந்துணர்தல்

அலகு 5 : அண்மைக்கால உரையாசிரியர்களின் உரைகளையும் மாணவர்கள் கண்டுணர்தல்

Department: Tamil Course: I M.A

Semester: I

**Sub Name: புனைகதையும் உரைநடையும்
PTLM13**

Subject Code:

அலகு 1 : சிறுகதைகளின் செல்நெறியை மாணவர்கள் அறிதல்

அலகு 2 : கடல்சார் மனிதவாழ்வை மாணவர்கள் புரிதல்

அலகு 3 : புதினங்களின் போக்கை மாணவர்கள் தெரிந்து கொள்ளல்

அலகு 4 : உரைநடைத் திறனை மாணவர்கள் கண்டுணர்தல்

அலகு 5 : பன்முகப் படைப்பாளர்களின் படைப்புத்திறனை மாணவர்கள் உணர்ந்திடுதல்

Department: Tamil Course: I M.A

Semester: II

Sub Name: மொழிவரலாறு

Subject Code:

அலகு 1 : மொழியின் தோற்றத்தை மாணவர்கள் அறிதல்

அலகு 2 : மொழியின் இனங்களை மாணவர்கள் தெரிந்து கொள்ளல்

அலகு 3 : மொழியின் குடும்பங்களையும் பிரிவுகளையும் மாணவர்கள் புரிந்திடுதல்

அலகு 4 : வரலாற்று அடிப்படையில் மொழியை மாணவர்கள் உணர்ந்திடுதல்

அலகு 5 : சமகால மொழியைப் புரிந்து, மாணவர்கள் மாற்றங்களை அறிந்திடுதல்

Department: Tamil Course: II M.A

Semester: IV

Sub Name: இலக்கியத்திறனாய்வியல்

Subject Code:

அலகு 1 : இலக்கியத்தின் அடிப்படைத் தன்மைகளை மாணவர்கள் அறிந்திடுதல்

அலகு 2 : இலக்கியத்தின் பரிணாமத்தை மாணவர்கள் தெரிந்திடுதல்

அலகு 3 : இலக்கியத்தை ஆய்வு முறையில் அணுக அடிப்படையில் இருந்து வளர்நிலை வரை மாணவர்கள் படித்திட செய்தல்

அலகு 4 : இலக்கியத்தை பன்முக நோக்கில் படிக்க மாணவர்களையும் பழக்குதல்

அலகு 5 : குறிப்பிட்ட நோக்கில் இலக்கியத்தை அணுகிப் பார்க்க மாணவர்களை தயார் செய்தல்.

Department: Tamil Course: I M.A

Semester: II

Sub Name: இணையத்தமிழ்

Subject Code:

அலகு 1 : ஆரம்பகால கட்டத்திலிருந்த ஓலைச்சுவடியிலிருந்து அச்சுநிலைக்கு மாறிய தமிழின் நிலையையும், தமிழ் எழுத்துக்களை கணினியியல் வடிவமைத்தல் குறித்தும் அந்த தமிழ் எழுத்துருக்களை பொருந்தும் முறையையும் அதில் உள்ள சிக்கல்கள் குறித்தும் மாணவர்களை அறியச் செய்கிறது.

அலகு 2 : தமிழ் இணையங்கள் அமைப்பது எப்படி முக்கியமான தமிழ் இணையங்கள் எவை என்பது பற்றி அறியச் செய்வதோடு தமிழ் இணைய நிறுவனங்களும் அமைப்புகளும் எவை எவை உள்ளன என்பது பற்றி அறிய வழிசெய்து வேலை வாய்ப்பிற்கான இணையங்கள் என்ன என்ன இருக்கின்றன என்பதையும் வலைப்பூ பற்றியும் அறியச்செய்கிறது.

அலகு 3 : இணையத்தில் தமிழை எவ்வாறு தரமிக்கதாக மாற்றுவது என்பது பற்றியும் இயக்க முறைமைகளில் தமிழ் பற்றியும் மாணவர்களுக்கு எடுத்துக்கூறுகிறது. புற மின்னணுச் சாதனங்களில் தமிழ் எவ்வாறு பயன்பாட்டில் உள்ளது என்ற புரிதலையும் தமிழ் இணையக் கல்விக் கழகத்தின் செயல்பாடுகளையும் விரிவாக விளக்குகிறது. தமிழ் வளமையம் பற்றியும் மொழி பெயர்ப்புச் சேத்தியம் பற்றியும் மாணவர்களுக்கு அறிவிக்கிறது.

அலகு 4 : மின்நூல், மீயுரைநூல், மின் செய்தித்தாள், மின் அகராதி, மின்நூல் கிடங்கு, மின் இதழ்கள் குறித்த புரிதலை உண்டு பண்ணுகிறது

அலகு 5 : இணையதளங்கள் அமைப்பதற்கான வழிமுறைகள், தமிழ் கல்விக்கு உதவும் இணையதளங்கள் பற்றி அறிவிப்பதோடு சமூக இணையதளங்களையும் வெளிக்காட்டுகிறது. தமிழ் இணைய மாநாடு குறித்தும், விளைவுகள் பரிந்துரைகள் குறித்தும் மாணவர்களுக்கு அறிவிப்பதோடு தமிழ் இணை வளர்ச்சி எவ்வாறு உள்ளது என்பதையும் மாணவர்களுக்கு தெரிவிக்கிறது.

Department: Tamil Course: I M.A

Semester: II

Sub Name: நாட்டார் பண்பாட்டு மரபுகள்

Subject Code: LTPC

அலகு 1 : மாணவர்கள் நாட்டார் மரபுகளை அறிமுகம் செய்து, வாய்மொழி இலக்கியங்களைப் புரிந்து கொள்வர்.

தாலாட்டு, தெம்மாங்கு, திருமணப்பாடல்கள், ஒப்பாரி பாடல்கள், கதைப்பாடல்கள், கதைகள், பழமொழிகள், விடுகதைகள் போன்ற வாய்மொழி இலக்கியங்களின் தன்மைகளையும், வகைகளையும் தெரிந்து கொள்வர்.

அலகு 2 : மாணவர்கள் நாட்டார் நிகழ்த்துக் கலைகளை அறிந்து கொள்வர். தெருக்கூத்து, பாவைக்கூத்து, கணியான் கூத்து, வில்லுப்பாட்டு, ஓயிலாட்டம், தேவராட்டம், கரகாட்டம் ஆகியவற்றின் வடிவம், உள்ளடக்கம், நிகழ்த்தப் பெறும் சூழல், நிகழ்த்தும் மரபு, சடங்கியல் உறவுகளை தெரிந்து கொள்வர்.

அலகு 3 : மாணவர்கள் நாட்டார் வழிபாடு, நாட்டார் சமயத்தின் செயல்பாடுகளை அறிந்து கொள்வர். தெய்வங்களின் வகைகள், குறிப்பாக சிறு தெய்வம், பெருந்தெய்வ நெறிகள், கொலையில் உதித்த தெய்வங்கள், தாய்தெய்வங்கள், வழிபாட்டு இடங்கள், சடங்கியல் நிகழ்த்துதல்கள், பலிகளின் வகைகள், வழிபடுவோர் போன்றவைகளைப் புரிந்து கொள்வர்.

அலகு 4 : ஆவியியம், குலக்குறியியம் போன்றவற்றை விரிவாக அறிந்து அவை தொடர்பான நம்பிக்கைகள், பழக்கவழக்கங்களை அறிந்து கொள்வர். நாட்டார் விளையாட்டுகள் குறித்தும் தெரிந்து கொள்வர்.

அலகு 5 : புழங்கு பொருட்கள் பயன்பாட்டினை அறிந்து கொள்வர். வட்டாரம் சார்ந்த கைவினைக்கலை, மண்பாண்டக்கலை, கட்டிடக்கலை, கலைஞர்கள், தொழில் நிலை வழக்காறுகள், நாட்டார் உணவு, சமையல், நம்பிக்கைகளைத் தெரிந்து கொள்வதன் மூலம் மண்ணின் மரபுகளை உணர்ந்து போற்ற முடியும்.

Department: Tamil Course: I M.A

Semester: I

Sub Name: நாட்டார் வழக்காற்றியல் அடிப்படைகள்

Subject Code: PTLE11

அலகு 1 : மாணவர்களுக்கு நாட்டார் வழக்காற்றியலின் பொதுப்புலத்தை அறிமுகம் செய்து, கலைச் சொல் சிக்கல்களைப் புலப்படுத்துதல் மூலம் வரையறைகளை விளங்கிக் கொள்வர். நமது மண்ணின் மரபுகளைப் புரிந்து கொள்ள அடிப்படையாக அமையும்.

அலகு 2 : மாணவர்கள் நாட்டார் வழக்காற்றியலின் எல்லையையும் பரப்பையும் அறிந்து கொள்வர். நாட்டார் வழக்காற்றின் படிநிலைகளான சேகரித்தல், வகைப்படுத்துதல், ஆய்வு செய்தல் போன்றவற்றை இவ்வலகில் புரிந்து கொள்வர்.

அலகு 3 : மாணவர்கள் நாட்டார் வழக்காற்றியலுக்கும் இலக்கியத்திற்கும் உள்ள தொடர்புகளை விளங்கிக் கொள்வர். நாட்டார் வழக்காற்றியலும் மொழியியலுக்கும் உள்ள தொடர்பை அறிந்து கொள்வர்.

அலகு 4 : மாணவர்கள் நாட்டார் வழக்காற்றியலின் அடிப்படை கருத்தாக்கங்களை தெரிந்து கொள்வர். போலி வழக்காறுகளை அறிந்து கொள்வர். கதை கூறு, கதை வகைகளை புரிந்து கொள்வர்.

அலகு 5 : மாணவர்கள் கள ஆய்வு நெறிமுறைகளை அறிந்து கொள்ள வைத்து, கள ஆய்வுச் சிக்கல்களை அறிந்து கொள்வர். மேலும் கள ஆய்வு உத்திகளை உணர்ந்து கொள்வர். மாணவர்கள் இப்புலத்தை ஒரு சமூக அறிவியல் புலமாக அறிந்து கொள்வர்.

Department: Tamil Course: II M.A

Semester: III

Sub Name: ஆராய்ச்சி நெறிமுறைகள்

Subject Code: KTLM33

அலகு 1 : மாணவர்கள் ஆய்வையும், அறிவியல் முறையையும் அறிந்து கொள்வர். ஆய்வுத் தலைப்பைத் தேர்ந்தெடுக்கும் முறையையும், ஆய்வு நெறித்திட்டத்தையும் தெரிந்து கொள்வர்.

அலகு 2 : மாணவர்கள் கருதுகோள், கருதுகோள் வகைகளைத் தெரிந்து கொள்வர். ஆய்வு நோக்கத்திற்கும் கருதுகோளுக்குமான வேறுபாடுகளைப் புரிந்து கொள்வர். ஆய்விற்கான உற்று நோக்கல், வினாநிரல், வினாப்பட்டியல், பேட்டி போன்றவற்றைத் தெரிந்து கொள்வர்.

அலகு 3 : மாணவர்கள் நூலகத்தின் பயன்பாடுகளை அறிவர். ஆய்விற்கான முதன்மை, துணைமை சான்றாதாரங்களை தெரிந்து கொள்வர். தமிழியல் ஆராய்ச்சியின் தோற்றம் மற்றும் வளர்ச்சிகளை புரிந்து கொள்வர்.

அலகு 4 : மாணவர்கள் ஆய்வேட்டின் வடிவமைப்பினைத் தெரிந்து கொள்வர். ஆய்வேட்டின் இடம்பெறும் இயல்புகுப்பு, மேற்கோள் விளக்கம், அடிக்குறிப்பு, துணைநாற்பட்டியல், பின்னிணைப்பு, புகைப்படங்கள், தகவலாளர் பட்டியல், ஆய்வில் நீக்க வேண்டியவை குறித்தும் விரிவாக விளங்கிக் கொள்வர்.

அலகு 5 : மாணவர்கள், பண்பாடு சார்ந்த கள ஆய்வினையும், முறையியலையும் விளங்கிக் கொள்வர். ஆய்வுக் களத்தினைத் தெரிவு செய்தல், கள ஆய்வு உத்தி முறைகள், தரவுகள் சேகரிப்பு, அறிக்கை தயாரித்தல் போன்றவற்றை ஆழமாகப் புரிந்து கொள்வர்.

Department: Tamil Course: I M.A

Semester: I

Sub Name: அறஇலக்கியம்

Subject Code: PTLM14

அலகு 1 : அற இலக்கியத்தில் அறம் பற்றிய விளக்கம் அறஇலக்கியத்தின் தோற்றம் வளர்ச்சி பற்றி மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 2 : திருக்குறள், நாலடியார், இனியவை நாற்பது போன்றவை பற்றிய செய்திகளை அறிந்து கொள்ள வழி செய்கிறது

அலகு 3 : திரிகடுகம், ஏலாதி, பழமொழி ஆகியவற்றில் இடம்பெற்றுள்ள அறங்கள் பற்றி மாணவர்கள் அறிந்து கொள்வார்கள்

அலகு 4 : ஆத்திசூடி, கொன்றை வேந்தன் ஆகியவற்றில் அமைந்துள்ள அறச்செய்திகளை அறிய வழி செய்கிறது

அலகு 5 : திருமுலர், வேதநாயகரின் நீதி நூலில் இடம்பெற்றுள்ள நல்ல கருத்துக்களை மாணவர்கள் அறிந்து கொள்வார்கள்.

Department: Tamil Course: I M.A

Semester: II

Sub Name: சிற்றிலக்கியம்

Subject Code:

அலகு 1 : சிற்றிலக்கியம் தோற்றம் அதன் வளர்ச்சி அதன் வகைமை பற்றிய செய்திகள் மாணவர்களுக்குப் பயன்பாடு உடையதாக இருக்கும்.

அலகு 2 : பிள்ளைத்தமிழ் பற்றியும் அதன் பருவங்கள் பற்றியும், தூது இலக்கியத்தின் சிறப்புகள் பற்றிய செய்திகளை மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 3 : இஸ்லாமிய, கிறித்தவ சிற்றிலக்கியங்களின் சிறப்புகளை மாணவர்களால் உணர முடியும்.

அலகு 4 : பரணி, உலா, குறவஞ்சி இலக்கியங்களின் சமூகப் பின்புலம் பற்றி அறிந்து கொள்வார்கள்

அலகு 5 : பாரதியாரின் நவீன சிற்றிலக்கியக்கிய கூறுகளான விநாயகர் நான்மணிமாலை பற்றி மாணவர்கள் அறிந்து கொள்ள முடியும்.

Department: Tamil Course: II M.A

Semester: III

Sub Name: காப்பிய இலக்கியம்

Subject Code: KTL31

அலகு 1 : தமிழ்க்காப்பியங்களின் இலக்கணம் பற்றி மாணவர்கள் அறிந்து கொள்வார்கள். தமிழ்க்காப்பியத் தோற்றம் வளர்ச்சி, பயன்படுத்தும் உத்திகள் பற்றியும் மாணவர்களால் அறிந்து கொள்ள முடியும்.

அலகு 2 : சிலப்பதிகார மதுரைக்காண்டத்தில் கோவலன் கண்ணகி பற்றிய செய்திகளையும் சீவக சிந்தாமணி, மணிமேகலை ஆகியவற்றின் காப்பியச் செய்திகளை நயங்களுடன் அறியமுடியும்.

அலகு 3 : பெரியபுராணம், கந்தபுராணம் போன்ற சைவ காப்பியங்கள் பற்றி மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 4 : வைணவ காப்பியச் செய்திகளையும், இசுலாமிய, கிறித்தவக் காப்பியச் செய்திகளையும் மாணவர்களால் அறிந்து கொள்ள முடியும்.

அலகு 5 : இருபதாம் நூற்றாண்டுக் காப்பியங்கள் பற்றி மாணவர்கள் தெரிந்து கொள்வார்கள்.

Department: Tamil

Course: II M.A

Semester: IV

Sub Name: பண்டைய இலக்கியம்

Subject Code:

அலகு 1 : சங்க இலக்கியத்தில் இடம்பெற்றுள்ள திணைக் கோட்பாட்டை சமூகவியல் அணுகு முறையில் மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 2 : நற்றிணை பாலைத்திணைப்பாடல்கள், குறுந்தொகை முல்லைத்திணை பாடல்களில் கூற்றுகளின் முக்கியத்துவம் பற்றி அறிவார்கள்

அலகு 3 : அகநானூறு நெய்தல் பாடல்கள், கலித்தொகை புறநானூற்றுப்பாடல்களின் சமூகநோக்கம் பற்றி மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 4 : திருமால் பெருமை, பாண்டியர் பெருமை மற்றும் குறிஞ்சிப்பாட்டின் தனித்தன்மைகளை மாணவர்கள் அறிந்து கொள்வார்கள்.

அலகு 5 : சிறுபாணாற்றுப்படையில் பாணர்களின் வாழ்வியல் செய்திகளை மாணவர்கள் அறிந்து கொள்ள முடியும்

Department: Tamil

Course: I M.A

Semester: I

Sub Name: தொல்காப்பியம் எழுத்து

Subject Code:

PTLM12

அலகு 1 :

1. தொல்காப்பிய இலக்கணம் பற்றிய அறிமுகம்
2. எழுத்துபிறப்பு, ஒலிப்பு பற்றி அறிந்து கொள்ள

அலகு 2 :

1. எழுத்துக்களின் புணர்ச்சி
2. தொகைமரபு பற்றி செய்திகளை தெரிந்து கொள்ள

அலகு 3 :

1. உருபுகள் பற்றி அறிந்து கொள்ள
2. உயிர், புள்ளி மயங்கியல் இலக்கணங்களை விளங்கிக்கொள்ள

அலகு 4 :

1. குற்றியலுகரப் புணர்ச்சி பற்றி அறிந்துகொள்ள
2. எழுத்துக்களின் சிறப்புப் பற்றி விளங்கிக் கொள்ள

அலகு 5 :

1. தொல்காப்பிய, நன்னூல் வேறுபடுமிடங்கள்
2. எதனால் வேறுபட்டது என்பதை தெரிந்துகொள்ள

Department: Tamil

Course: I M.A

Semester: II

Sub Name: தொல்காப்பியம் சொல்

Subject Code:

அலகு 1 :

1. கிளவியாக்கச் செய்திகள்
2. வேற்றுமையியல் செய்திகள் அறிய

அலகு 2 :

1. வேற்றுமை மயங்குமிடங்கள்
2. உயர்திணை விளியேற்குமிடங்கள், ஏற்கா இடங்கள்
3. அ.நிணை விளியேற்குமிடங்கள், ஏற்கா இடங்கள் பற்றி அறிந்து கொள்ள

அலகு 3 :

1. பெயரின் இயல்பு
2. வினையின் தன்மை
3. இடைச்சொற்களின் தன்மை பற்றி அறிந்து கொள்ள

அலகு 4 :

1. உரிச் சொற்கள் தன்மை
2. தொல்காப்பிய எஞ்சி சொல்லதிகார செய்திகளை அறிய.

அலகு 5 :

1. வினைச்சொற்கள், வழுவமைதி, இடை உரிச்சொல் வேறுபடுமிடங்களை ஒப்பிட்டறிய
2. வழுவமைதி பற்றிய தொல் - நன்னூலார் கருத்தை அறிய

Department: Tamil

Course: II M.A

Semester: IV

Sub Name: தொல்காப்பியம் II

Subject Code: PTLM12

அலகு 1 :

1. தொல்காப்பிய கால மெய்ப்பாடு பற்றி அறிய
2. அன்றைய உவம உருபு, பயன்பற்றி அறிய

அலகு 2 :

1. செய்யுள் இலக்கணம் பற்றி தெரிந்து கொள்ள
2. மரபு சார்ந்த பெயர், வழக்கம் விளக்கமாகத் தெரிந்து கொள்ள

அலகு 3 :

1. தொல்காப்பியச் செய்யுளியலில் ஏற்பட்ட மாற்றங்களை விளங்கிக் கொள்ள
2. செய்யுள் உறுப்புகளில் ஏற்பட்ட மாற்றங்களை அறிந்து கொள்ள

அலகு 4 :

1. வண்ணம், வனப்பு பற்றி அறிந்து கொள்ள
2. நால், நால்வகை, குற்றம், உத்திகளை அறிந்து கொள்ள

அலகு 5 :

1. தமிழர் சிந்தனை மரபில் ஏற்பட்ட மாற்றங்களை அறிய
2. மொழிப் பொருண்மை பற்றி விளங்கிக் கொள்ளப் பயன்படுகிறது.

Department: Tamil

Course: II M.A

Semester: III

Sub Name: தொல்காப்பியம் பொருள்

Subject Code: PTLM12

அலகு 1 :

- அகத்திணை – களவியல்
1. சங்ககால மக்களின் அகம் சார்ந்த செய்திகள்
 2. சங்ககால மக்களின் களவு வாழ்க்கை பற்றியவற்றை அறிந்து கொள்ள பயன்படுகிறது

அலகு 2 :

- கற்பியல் - பொருளியல்
1. தமிழ் தொல் இலக்கண நால்வழி கற்பியல் வாழ்க்கை
 2. பொருளியல் சார்ந்த நிலைகளை அறிந்து கொள்ள உதவுகிறது

அலகு 3 :

- புறத்திணையியல்
1. புறம் சார்ந்த செய்திகள் , போர் , ஏழு திணை பற்றி அறிய
 2. அன்பின் 7 திணைக்குப் புறமான 7 புறத்திணை பற்றி அறிய முடிகிறது

அலகு 4 :

- தொல் - நம்பி அகப்பொருள் ஒப்பீடு
1. நம்பியாகப் பொருளில் காளமாற்றத்தினால் ஏற்பட்ட அகம் சார்ந்த வளர்ச்சி நிலைகளை அறிய
 2. தொல் - நம்பியில் ஏற்பாட்ட மாற்றங்களை ஒப்பிட்டு உதவப் பயன்படுகிறது

அலகு 5 :

- தொல் - புறத்திணை – பு.வெ.மா ஒப்பீடு
1. புறத்தில் ஏற்பட்ட வளர்ச்சிகளை அறிய
 2. கால மாற்றத்தில் விளைந்த புறச் செய்திகளை ஒப்பிட்டு விளங்கிக் கொள்ள பயன்படுகிறது

DEPARTMENT OF TAMIL

M.A PROJECT

3. 1. To understand characters in new literary creations.
4. 2. To understand new Research findings.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics I Year: B.A Economics

Semester: I Subject: Micro Economics Subject Code: SMEC11

- Understand the meaning of micro economics.
- Should know the consumption and different types of laws.
- Understand the indifference curve analysis.
- Knowledge about the production and theories of population
- Learn about production function.

(Learning Outcome/Acquisition)

Department: Economics Year: I B.A., Economics Semester: I

Sub: Statistical Methods – I Sub. Code: SMEC12

- To understand the concepts of statistics and data
- To study the importance of and objectives of classification, tabulation, diagrams and graphs
- To study the uses and measurement of averages
- To understand the dispersion and its different types and measurement
- To acquire the knowledge of skewness and kurtosis

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics Year: I B.A (TM& EM)

Semester: I Subject: Principles of Advertisement-I Subject Code: SAEC11

- Understand the meaning and origin of advertisement.
- Knowledge about the various types of advertising Media.
- It helps to understand the press advertising.
- Learn about the forms of Outdoor advertising.
- Comprehend the role of electronic Media in advertising.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics I Year: B,A Economics

Semester: II Subject: Micro Economics -II Subject Code:

- Understand the meaning of cost and revenue concepts.
- Should know to study the market theories.
- Knowledge about distribution theory.
- Learn about wage and wage theories..
- Learn about interest and profit.

(Learning Outcome/Acquisition)

Department: Economics

Year: I B.A., Economics

Sub: Statistical Methods – II

Semester: II

Sub. Code:

- To study the correlation and regression and its types
- To examine the analysis of time series
- To understand the uses, problems of index number and its different methods
- To acquire the knowledge of probability
- To study the importance of association of attributes

(Learning Outcome/Acquisition)

Department : PG and Research Department of Economics Year: I B.A (TM& EM)

Semester: II Subject: Principles of Advertisement-II Subject Code:

- Understand the meaning and importance of advertising budget, and its reaction.
- Knowledge about the advertising copy and way to prepare an effective advertising copy.
- Understand the concept of Proof reading, Proof correction and Printing.
- Learn about an evaluation of advertising effectiveness.
- Comprehend the role and importance the service of advertising agency.

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

YEAR: II

BA (EM and TM)

SEMESTER : III

SUBJECT NAME: Mathematical Methods –I

SUBJECT CODE : JMEC31

- Teach about the number system and also sequences and series.
- Explain the meaning and types of sets and its operations.
- Study the meaning and types of functions and its applications in economics.
- Knowledge about the analytical geometry, application of straight lines in economics .

- Learn about the commercial arithmetic by way of simple interest, compound interest, annuities and true discount.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics II Year: B.A (ECO) TM &EM

Semester: III Subject: Economics of Salesmanship Subject Code: JSEC3A

- Salesmanship helps to create demand for new products or new brands.
- It helps to establish close relationship between manufacturer and consumer.
- The salesman observes the fashion, taste, like and dislike of customer and informs the product about their choice.
- Establishes the goods will of firm in the market in order to increase the sales easily.
- It explains the duties and fundamental qualities of the manager and their sales promotion activities.

(Learning Outcome/Acquisition)

Department: PG And Research Department of Economics Year: B.A (ECO) II TM &EM

Semester: III Subject: International Economics - 1 Subject Code: JAEC31

- The study helps us to know the theories of international trade.
- To know the meaning and origin of international trade.
- To analyse the role of international trade in the growth and development of developing and under developed countries.
- To study about balance of payments, balance of trade and exchange rates of the currencies of the international market.
- To explain the impact of free trade and protection of international trade.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics Year: II-Non Major

Semester: III Subject: Economics for Competitive Examination Subject Code: JNEC3A

- Understand the basic economic concepts.
- Its helps us to know the theories of consumption.
- Knowledge about the factors of production.
- Learn about the price determination under various market conditions.

- It gives ideas an investment opportunity.

(Learning Outcome/Acquisition)

Department: History II Year : Non Major

Semester: III

Subject: Freedom movement in India

Subject Code: JNHI3A

- Learn about the birth of Indian national congress
- Knowledge about the non co - operation movement.
- It explains about the poorna swaraj resolution.
- It helps us to understand the round table conferences.
- Understand the functions of independence Act of 1947.

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

YEAR: II

BA (EM and TM)

SEMESTER : IV

SUBJECT NAME: Mathematical Methods – II

SUBJECT CODE :

- Understand the meaning and rules of derivatives, application of derivatives in economics.
- Student should know about partial derivatives and its application in economics.
- Study the meaning and types of integrals, application of integrals in terms of consumer's surplus and producer's surplus.
- Study the meaning, types and operations of matrices.
- Study the applications of matrices in input-output analysis, Linear programming.

(Learning Outcome/Acquisition)

Department : PG and Research Department of Economics II Year: B.A (ECO) TM and EM

Semester: IV

Subject: International Economics-II

Subject Code:

- International trade and its theories - creates awareness among the students about the global economy.
- The students can learn about the terms of trade and gains from the international trade.

- Balance of payments and trade policy – under this unit, Students can understand the procedures of the imports and exports with trade policies.
- This chapter clearly shows the need of international monetary systems and financial institutions.
- International economic relations and agreements are dealt with terms and conditions of general agreements among the global institutions.

(Learning Outcome/Acquisition)

Department: PG And Research Department of Economics **Year:** II B.A TM &EM

Semester:V **Subject:** Entrepreneurial Development **Subject Code:**GMEC51

- To develop and strengthen the entrepreneurial quality.
- Analyze the environmental setup relating to small industry and small business.
- To select the product and know the source of help and support available for starting a small-scale industry.
- Acquire the basic management skills among the entrepreneurs.
- Develop passion for integrity and understand the need of entrepreneurial discipline.

(Learning Outcome/Acquisition)

Department : PG and Research Department of Economics **Year:** II-Non Major

Semester: IV **Subject:** Issues in Indian Economy **Subject Code:**

- Understand the features of Indian Economy.
- Knowledge about the national Income, and the way to measure the National Income in India.
- Its helps us to know the Demographic profile of India.
- Learn about the causes and consequences of poverty and unemployment.
- Comprehend the role and importance of monetary and fiscal policy.

(Learning Outcome/Acquisition)

Department: History **II Year :** Non Major **Semester:** IV

Subject: Modern Constitution-Indian Constitution **Subject Code:**

- Learn about the features of Indian constitution.
- Knowledge about the fundamental rights and duties.
- It explains about the power of president and vice resident of a country.
- It helps us to understand role of Lok sabha and Rajya sabha speakers.
- Understand the functions and powers of supreme court .

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

Year : III

Semester: V

SUBJECTNAME:

Macro Economic s-I

SUBJECT CODE: GMEC51

1. Understand the meaning of Macro Economics, its Difference and importance
 - Learn about the National Income, Gross Domestic product, Gross National Product, Net National Product
 - Macro Economics is very useful for theory of employment oppounities
 - The student to know the importance and development of consumption Function.
 - Knowledge of multiplier and Accelerator models

(Learning Outcome/Acquisition)

Department: Economics

Year: III BA Economics (TM & EM)

Sub: Monetary Economics

Semester: V

Sub. Code: GMEC52

- Understand the concept of money.
- Acquire the knowledge of monetary standards.
- Acquire the knowledge of value of money and supply of money.
- Understand the concept of inflation and deflation
- Acquire the knowledge of modern banking technology.

(Learning Outcome/Acquisition)

Department: PG And Research Department of Economics Year: B.A (ECO) III TM & EM

Semester: V Subject: Entrepreneurial Development Subject Code: GMEC5A

- To develop and strengthen the entrepreneurial quality.
- Analyze the environmental setup relating to small industry and small business.
- To select the product and know the source of help and support available for starting a small-scale industry.
- Acquire the basic management skills among the entrepreneurs.
- Develop passion for integrity and understand the need of entrepreneurial discipline.

(Learning Outcome/Acquisition)

Department: Economics Year: III BA Economics (TM & EM)
Sub: Labour Economics Semester: V Sub. Code: GMEC5B

- To study the characteristics of labour.
- Understand the concept of trade unions.
- Acquire the knowledge of workers participation in management.
- Learn about labour welfare.
- Understand the concept of social security, social insurance and social assistance.

(Learning Outcome/Acquisition)

DEPT: ECONOMICS Year: III Semester: VI
SUBJECTNAME: Macro Economics-II SUBJECT CODE: GMEC61

- Learn about the theories of distribution
- It covers from Investment approaches in various Aspects
- It easily understand Applicability of Keynes theory of
- Under developed countries
- Students are growing influence in Macro Economics Policy with All Employment
- Role of Monetary Policy in a Developing Economy is easy to learn

(Learning Outcome/Acquisition)

Department: Economics Year: III BA Economics (TM & EM) Semester: VI

Sub: Banking Theory and Practice

Semester: VI

Sub. Code: GMEC62

- Understand the functions and role of commercial banks
- Acquire the knowledge of banking system
- Acquire the knowledge of banking operations
- Understand the functions and role of central banks
- Acquire the knowledge of modern banking technology

(Learning Outcome/Acquisition)

Department: Economics

Year: III BA Economics (TM & EM) Semester: VI

Sub: Indian Economy

Sub. Code: GMEC63

- Understand the availability of natural resources, problems of poverty and unemployment.
- To explain the role of agriculture in Indian economy
- To study the role of industrial sector
- Acquire the knowledge of transport sector
- Understand the concept of five year planning

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics

III Year: B.A (ECO)

Semester: VI

Subject: Public Finance

Subject Code:GMEC64

- Secure adjustments in allocation of resources.
- Secure adjustment in the distribution income and wealth with the help of revenue and expenditure process of the government.
- Secure economic stabilization or to remove economic fluctuations and distortions in the economy.
- Accelerate economic development.
- Secure distribution justice.

(Learning Outcome/Acquisition)

Department: History

III Year: B.A ECO (T.M/E.M)

Semester: VI

Subject: Economics of Marketing

Subject Code:GMEC6A

- Understand the importance and role of marketing in economic development.
- Learn about the kinds of buyers in the market.
- It gives an essential of good storage.
- Knowledge about the different types of brand packaging.
- It helps us to understand role of middleman in retail market.

(Learning Outcome/Acquisition)

Department: Economics

Year: I M.A Economics

Semester: I

Sub: Advanced Micro Economics

Sub. Code: PESM11

- Acquire the knowledge of consumer demand, elasticity of demand.
- To understand the Theory of Production function.
- To study about the perfect competition and imperfect competition.
- To explain the concept of oligopoly, duopoly and price leadership
- Learn about Pricing Theory

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

Year: I MA

Semester: I

SUBJECTNAME: Macro Economic Theory and Analysis-I SUBJECT CODE: PESM12

- Basic concept of Macro theories, its relation between variables
- Knowledge about National Income and Input-Output Accounting
- Learn about the consumption function and hypothesis
- Students to develop the types of investment to Skill The Knowledge
- Develop Their Macro Economics Issues in Various aspects

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

YEAR: I MA

SEMESTER : I

SUBJECT NAME: Statistical Methods for Economics –I SUBJECT CODE : PESM13

- Teach about the meaning and types of correlation, coefficient of correlation, and its properties.

- Learn about the meaning and types of regression equations.
- Study the concept and components of time series analysis, determination of regular and seasonal indices.
- Knowledge about the index numbers, its types, problems of constructing index numbers, and tests of adequacy of index numbers.
- Learning the concept of vital statistics, uses and methods of vital statistics, life tables and its uses.

(Learning Outcome/Acquisition)

Department: Economics

Year: I MA Economics

Sub: Monetary Economics

Semester: I

Sub. Code: PESM14

- Understand the concept of money and liquidity.
- Acquire the knowledge on demand for money.
- Acquire the knowledge of RBI Approach to supply of money.
- Understand the concept of money market and capital market.
- Acquire the knowledge of Monetary Policy.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics

I Year: M.A (ECO)

Semester: I Subject: The History of Economic Thought

Subject Code:PESE12

- The study shows that there is a certain Unity in economic thought and this unity connects us with the ancient days.
- The study helps us to understand the origin of economics.
- It gives ideas in shaping the economic and political policies of different countries.
- It motivates the students to realize that economics is different from economists.
- The study explains the thought ideas are conditioned by time, place, and circumstances.

(Learning Outcome/Acquisition)

Department: Economics

Year: I M.A Economics

Sub: International Economics

Semester: I

Sub. Code: PESE11

- This unit creates awareness among the students about the world economy.

- In this chapter, students can learn about the terms of trade and gains from the international trade.
- Students can understand the procedures of the imports and exports with trade policies.
- This chapter is dealt with international monetary systems and financial institutions
- The chapter shows terms and conditions of general agreements among the global institutions.(trims,trips ,etc)

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics I Year: M.A (ECO)

Semester: II Subject: Micro Economics -II Subject Code:

- To create an awareness among the students about recent development in micro economics
- To import skills in micro theories of firms and distribution.
- To help the students to develop analytical skills in the economic behavior of individuals under certainty and uncertainty.
- To understand the welfare economics
- To provide the students and indepth view of general equilibrium in closed and open system of economic analysis.

(Learning Outcome/Acquisition)

DEPT: ECONOMICS Year :I MA Semester: II

SUBJECTNAME: Macro Economic Theory and Analysis-II SUBJECT CODE:

- Understand with Government sector, Is-Lm mode, with Labour Market
- Should know how to develop the quantity of money and price level
- Knowledge about post Keynesian Development in Macro Economics
- Learn about theory of Income and employment oppournities
- The students to develop skills regarding macro Economics Policies

(Learning Outcome/Acquisition)

Department: Economics Year: I MA Economics

Sub: Environmental Economics Semester: II Sub. Code:

- Acquire the knowledge of Environmental Economics.
- Understand the approach of optimality of resources allocation
- Acquire the knowledge of resource conservation.
- Understand the concept and forms of pollution.
- Acquire the knowledge on economic policies related to environmental protection.

(Learning Outcome/Acquisition)

DEPT: ECONOMICS

YEAR: I MA

SEMESTER : II

SUBJECT NAME: Statistical Methods for Economics– II

SUBJECT CODE :

- Study the definition of probability theory and its distribution.
- Examine the basic concepts and laws of sampling distributions.
- Study about the estimator, its properties and various problems related to estimator.
- Testing the null and alternative hypotheses , and the concept of type I and type II errors.
- Analyse the sampling distributions by ‘z’, ‘t’, ‘F’,’ X²’ tests.

(Learning Outcome/Acquisition)

Department: Economics Year: I M.A Economics

Sub: Indian Economy

Semester: II

Sub. Code:

- To understand the features of Indian economy
- To explain the planning models
- To study the concept of Land Reforms and Green Revolution
- Acquire the knowledge of industrial growth in India.
- Understand the concept of Infrastructure and economic development

(Learning Outcome/Acquisition)

Department: Economics Year: I M.A Economics

Sub: Computer Application in Economics Semester: II

Sub. Code:

To understand the Ms Office and SPSS

- To explain the Data Entry
- To study the concept of Code Book, Data List and Begin Data
- Acquire the knowledge of ANOVA
- To understand analysis of Interpretation of Data

(Learning Outcome/Acquisition)

Department: Economics

Year: II M.A., Economics

Sub: Economics of Growth and Development

Semester: III Sub. Code:KESM31

- To study the importance of economic development and its measurement
- To understand and study the different theories of growth
- To study the importance theories of development
- To study the sectoral aspects of development
- To acquire the importance of resource allocation, planning and development

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics Year: II M.A Economics

Semester: III Subject: Public Economics Subject Code:KESM32

- In democracy it is important to know the role of government. Hence the students should know how to select the representatives.
- Students should act as the protector of public utilities.
- To impart knowledge to the students regarding the system of taxation, public expenditure and budgeting.
- To create the students as responsible citizens and honest tax payers.
- To make the students understand the problems of budgeting in their own home.

(Learning Outcome/Acquisition)

Department: PG and research dept of economics Year: II M.A Economics

Semester: III Subject: Research Methodology Subject Code:KESM33

- Understand the methodology of economic and social research.
- To provide an environment and create aptitude towards research.
- To make the students to understood the current Economic problems.
- To important knowledge to the students about application statistical tools in Social Science.
- To motivate the students to write a research paper

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics II Year: M,A Economics

**Semester: III Subject: Financial Economics Subject
Code:KESM34**

- Should know the meaning of financial economics
- Understand the various concepts of financial economics.
- Learn about the working of financial system.
- Knowledge about the short term and long term loans and share market system.
- Knowledge about Indian capital market and functions of SEBI.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics Year: II M.A Economics

Semester: III Subject: Human Resource Management Subject Code: KESE31

- Understand the role and importance of Human Resource Management.
- Learn about the evaluation of employee recruitment and selection plan and process.
- Understand to develop the employability skills for the work place.
- Demonstrate knowledge of human behavior in organization and the role of motivation strategies, including motivation theories.
- Knowledge about the different method of performance evaluation.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics Year: II M.A Economics

Semester: IV Subject: Environmental Economics Subject Code:

- Knowledge about the Importance of Environment and Environmental Economics.
- Understand the approach of optimality of resources allocation.
- Acquire the knowledge of resource conservation.
- Understand the concept of forms of pollution.
- Learn about an Economic Policies related to environmental protection.

(Learning Outcome/Acquisition)

Department : PG and Research Department of Economics II Year: M,A Economics

Semester: IV Subject: Health Economics Subject Code:

- Understand the meaning of health economics.
- Should know how to study theory of health economics.
- Learn about public expenditure on health.
- Learn about public expenditure on health
- Knowledge about expenditure and effects on health.

(Learning Outcome/Acquisition)

Department: PG and Research Department of Economics II Year: M.A (ECO)

Semester: IV Subject: Economics of Microfinance Subject Code:

- To know the meaning and origin of economics of microfinance.
- To analyze the financial access and constraints differ between low and high income countries.
- Knowledge about source of microfinance for the rural development.
- To know the effective management of microfinance and group lending among the households.
- Studying about subsidy and sustainability of microfinance.

(Learning Outcome/Acquisition)

Department: Economics

Year: II M.A Economics Semester: IV

Sub: Demography

Sub. Code:

- Knowledge about the meaning and scope of demography.
- It explains the structure of population and its effect on developed and less developed nations.
- The subject helps us to know about, Theories of migration and urbanization.
- It gives the demographic data base in India in order to develop the country (Age structure of population, infant, Child mortality rates, etc.)
- The chapter shows terms and conditions of general agreements among the global institutions.(trims, trips ,etc)
- It gives an ideas and views on demography.

DEPARTMENT OF ECONOMICS

M.A PROJECT

- 1. Teach the students about how to select the research title in Economics.
- 2. Train the students to frame the objectives of their research title.
- 3. Explain the various types of data, methods of collecting data and coding the data.
- 4. Motivate the students to apply various Statistical tools for analysis the collected data.
- 5. Teach about how to prepare and present the research report in the specified format.

Department: PHYSICS

Year: I semester: I

Subject Name: Mechanics and Relativity

SUB CODE: SMPH11

(Learning outcome/Acquisition)

Co1: Analysing the vectors

Co2: Gaining knowledge about conservation laws

Co3: Familiar with the dynamics of rigid bodies

Co4: Understanding the hydrostatics and hydrodynamics

Co5: Conceiving the basics and applications of relativity

Department: PHYSICS

Year: I Semester: I

Subject Name: Properties of Matter and Acoustics

Sub.Code: SMPH12

(Learning outcome/Acquisition)

CO1: To introduce the students, the analysis of linear elastic solids under mechanical loads and to characterize materials with elastic relations.

CO2: Beam theory is used to design and analysis of wide range of structures in construction and it is also used in understanding the physical properties of rigid materials.

CO3: To understand the motion of fluids such as surface tension and viscosity and their variations with temperature.

CO4: Sound theory describes the nature of sound and the theory of wave propagation.

CO5: It gives the idea about the basic concept of acoustics and Ultrasonics infers its usage in civil construction.

Department: PHYSICS
Subject Name: Practical - I

Year: I Semester: I
Sub.Code:SMPHP1

(Learning outcome/Acquisition)

CO1: To determine the Young's modulus of the material of a bar by Non-uniform bending method using pin and microscope.

CO2: To determine the Young's modulus of the material of the bar by uniform bending method using optic lever and telescope.

CO3: To determine Young's modulus of a given bar by measuring the depression of its loaded end when it is used as cantilever.

CO4: To determine rigidity modulus of the material using torsion pendulum method with and without mass and calculating the moment of inertia of the disc.

CO5: To determine the coefficient of viscosity of a highly viscous liquid (Such as castor oil) by Stokes' method.

CO6: To determine the surface tension of a liquid using capillary rise method.

CO7: To verify laws of transverse vibrations of strings using sonometer.

CO8: To determine the AC frequency of mains using sonometer.

CO9: To determine acceleration due to gravity at the place and to measure the radius of gyration and moment of inertia of the bar pendulum about an axis through the centre of gravity perpendicular to the plane of the bar.

CO10: To determine the frequency of electrically maintained tuning fork by Melde's string method.

Department: PHYSICS
Subject Name: Thermal Physics and statistical Mechanics

Year:I semester:II
Sub code:

(Learning outcome/Acquisition)

Co1: Understanding the low temperature physics

Co2: Familiar with kinetic theory of gases

Co3: Gaining knowledge on thermodynamical laws

Co4: Familiar with the latent heat equation and the concept of entropy

Co5: Understanding statistical mechanics

Department: PHYSICS

Subject Name: Optics

Year: I Semester: II

Sub.Code:

(Learning outcome/Acquisition)

CO1: To learn the geometrical approximation including design of optical system and aberration.

CO2: Wave optics gives the fundamental knowledge of interference, diffraction and polarization.

CO3: Image forming system with the emphasis on the telescope and microscope were introduced.

CO4: Fiber optics system has allowed many important advances in tele-communication, mechanical and medical fields, since its transmission loss is low.

CO5: Lasers are a key component of modern communication system. It gives the operations and basic properties of most common laser types.

Department: PHYSICS

Subject Name: Practical - II

Year: I Semester: II

Sub.Code:

(Learning outcome/Acquisition)

CO1: To determine specific heat capacity of a liquid by the method of Newton's law of cooling.

CO2: To determine the thermal conductivity of a bad conductor like card board (or ebonite sheet) by Lee's disc method.

CO3: To estimate the specific heat capacity of the liquid by Callender and Barnes continuous flow calorimeter.

CO4: To calculate determine the refractive index of the material of a prism for various colour of the composite light and to determine the dispersive power of the prism.

CO5: Calculating the refractive index of liquid using hollow prism by minimum deviation method.

CO6: To determine the number of lines per meter of the grating (to standardise the grating) using spectrometer and measuring the wavelength of the prominent lines of the mercury light.

CO7: Measuring the various wavelength of VIBGYOR spectrum by oblique incidence method.

CO8: To determine the diameter (thickness) of a thin wire by forming an air wedge.

CO9: Determination of refractive index of liquid by forming newton's ring.

CO10: To determine the thermal conductivity of a given unknown material using Searle's apparatus.

Department: PHYSICS
Subject Name: Electricity and Magnetism

Year: II Semester: III
Sub.Code: JMPH31

(Learning outcome/Acquisition)

After completion of this course, students will be able to:

CO1: Understand the circumstances under which changing magnetic fields lead to induced currents.

CO2: Get the fundamental knowledge about transient current and also understand the growth and decay of charge for different combinations LR circuit, CR circuit, LCR circuits.

CO3: Understand the alternating current in terms of voltage and current with time ac for different single components (L, C, R) only and also the LCR series and parallel combinations.

CO4: Get knowledge about the principle of thermocouple and applications of thermocouple.

CO5: Get sound knowledge in magnetic properties of the material and also understand how Maxwell equations lead to electromagnetic waves.

Department: PHYSICS
Subject Name: Maintenance of Electrical Appliances

Year: II Semester: III
Sub. Code: JSPH3A

(Learning outcome/Acquisition)

CO1: Get the fundamental knowledge about Resistance, Capacitance and Inductance and also how to measure the value of resistance, capacitance values.

CO2: Get the basic knowledge about Transformer and how is it working and testing the transformers and also how to construct the simple transformers and identify to solve their losses

CO3: Get knowledge about the home appliances like Grinder, Washing machine and oven

CO4: Know how to electrical wiring in home and also industries.

CO5: Get knowledge about how to protect the electrical circuit and how to solve any problems in basic circuit connections.

Department: PHYSICS
Subject Name: Non Major- Basic Physics I

Year: II Semester: III
Sub. Code: JNPH3A

(Learning outcome/Acquisition)

CO1: Get the fundamental knowledge about Motion, Force, Newton law and also conservation of energy.

CO2: Get the basic knowledge about Pascal's law and Archimedes Principle and their applications.

CO3: Get basic knowledge about Heat and Sound and also to measure the heat and temperature and sound

CO4: Get the basic knowledge about Light like reflection, refraction, polarisation, Interference, double refraction.

CO5: Get the fundamental knowledge about Resistance and how to measure the value of resistance values.

Department: PHYSICS
Subject Name: Programming in C++

Year: II Semester: IV
Sub.Code:

(Learning outcome/Acquisition)

Student will be able to

CO1: Understand the basics of C and C++ languages.

CO2: Know how to write inline function for efficiency and performance.

CO3: Understand classes and objects and how to design C++ programs with classes.

CO4: Get knowledge about overload functions, operators and inheritance in C++ programs.

CO5: Understand the features of C++ stream, working with files, file pointers and their manipulations.

Department: PHYSICS

Year: II Semester: IV

Subject Name: Maintenance of Electronic Equipments

Sub. Code:

(Learning outcome/Acquisition)

CO1: Get the skill knowledge about star and delta connection of resistors and capacitors-soldering and desoldering techniques

CO2: Get the practical skill about how to measure the voltage, frequency, waveforms and phase.

CO3: Get the basic skill about Transducers like resistive transducers, capacitive transducers, and piezzo electric transducers

CO4: To understand about communication devices like Antennas, DTH system, Mobile communication.

CO5: To understand about Photography and in details.

Department: PHYSICS

Year: II Semester: IV

Subject Name: Non Major- Basic Physics II

Sub. Code:

(Learning outcome/Acquisition)

CO1: Get the fundamental knowledge about Nucleus and their properties and also about Radioactivity like α , β , γ rays and their properties

CO2: Get the basic knowledge about Magnets and their types and properties and also Solids and their characterization

CO3: Get basic knowledge about Light like LASER and their properties and types.

CO4: Get the basic knowledge about Theory of Relativity

CO5: Get the fundamental knowledge Number systems in Digital electronics

Department: PHYSICS

Year: II Semester: IV

Subject Name: Practical - II

Sub.Code:

(Learning outcome/Acquisition)

CO1: Determining the magnetic moment of a bar magnet and earth's magnetic induction using field along the axis of coil with deflection magnetometer.

CO2: Calibration of low range voltmeter using potentiometer.

CO3: To calibrate the given ammeter using potentiometer.

CO4: Determining the EMF of thermocouple for various temperature differences using potentiometer.

CO5: Comparing the resistance of two given resistors and finding the specific resistivity of given unknown resistor.

CO6: Studying the frequency response curve for different resistance values by forming series resonance circuit.

CO7: Studying the frequency response curve for different resistance values by forming parallel resonance circuit.

CO8: To determine the current sensitiveness of the given ballistic galvanometer by studying the figure of merit.

CO9: Comparing the EMF of two given sources and also comparing the capacitances of two given capacitors using ballistic galvanometer

CO10: Construct an Owen's bridge and determine the self-inductance of an unknown coil.

CO11: To compare the capacitance of the two capacitors by Desauty's method.

CO12: Construction of Carey Foster's bridge and finding the temperature co-efficient of resistance of unknown given resistor.

CO13: To determine the magnetic moment of a given bar magnet and earth's magnetic induction using deflection magnetometer.

CO14: To find the angle of deviation for different angles of incidence and calculate the refractive index of the material of the glass prism by drawing i-d curve.

CO15: Determining the wavelength of different colors in the visible spectrum by employing oblique incidence method.

Department: PHYSICS

Year: III Semester: V

Subject Name: Atomic Physics

Sub.Code: GMPH51

(Learning outcome/Acquisition)

CO1: Gains the knowledge of classification of solids on the basis of band theory and their optical properties.

CO2: Working principle of different types of mass spectrograph.

CO3: Knowledge of coupling schemes, periodic classification of elements and the magnetic dipole moment due to orbital motion of electron.

CO4: How to produce X-Rays and their characteristic of X-Ray spectrum.

CO5: How photoelectric cells are working and the basic concepts of photoelectric effect.

Department: PHYSICS

Year: III Semester: V

Subject Name: Quantum Mechanics

Sub.Code: GMPH5B

(Learning outcome/Acquisition)

CO1: Introduction about quantum mechanics brings out the quantum ideas and its subsequent progressive advances.

CO2: The physical significance of the wave function can understand by the uncertainty principle, the time-dependent and time-independent Schrodinger theories.

CO3: The scattering phenomena are useful in understanding the properties of atoms, nuclei and the interaction of elementary particles.

CO4: The studying of photon behaviors is useful in designing the quantum optical devices such as lasers enabled in optic telecommunications.

CO5: The computer chips used in desktops, laptops, smart phones etc... are working on the principle of wave nature of electrons.

Department: PHYSICS
Subject Name: Solid State Physics

Year: III Semester: V
Sub.Code: GMPH5C

(Learning outcome/Acquisition)

CO1: Students be able to understand the basic knowledge of crystal systems, different types of crystals and their structures, atoms, interatomic forces and bonds.

CO2: Structural determination of simple structures, understand the concepts of reciprocal space and brillouin zones.

CO3: Band theory of solids enables the band structure of conductors, semi-conductors and insulators and the properties of conducting charge carriers.

CO4: Basic theory of superconductivity allows the students to know about infinite conduction at lower temperatures and also how the external magnetic field induces the transition of superconductivity in metals.

CO5: Students are able to recognize the different types of superconductors and their properties.

Department: PHYSICS
Subject Name: Basic electronics

Year: III semester: V
SUB CODE: GMPH52

Co1: To understand characterisation of diodes.

Co2: Explain application of transistor and amplifiers.

Co3: To understand different types of oscillators.

Co4: Advanced transistors like FET and MOSFET.

Co5: To understand the characteristics of OP-Amp and application.

Department: PHYSICS

Year: III semester: VI

Subject Name: Digital Electronics

SUB CODE: Co1:

Number system will explain different types of codes and numbers.

Co2: Boolean algebra explained different types of fundamental logic gates.

Co3: Able to understand multivibrator 555 timers and flip-flops.

Co4: Able to understand basic fundamentals of counters and register.

Co5: To understand conversation of D/A and A/D BCD to Decoder.

Department: PHYSICS

Year: II Semester: VI

Subject Name: Nuclear and Particle Physics

Sub.Code:

(Learning outcome/Acquisition)

CO1: General properties of atomic nucleus. Why do nuclei emit alpha, beta particles? How do we interpret the special properties of nuclei such as stability.

CO2: Knowledge of nuclear decay process.

CO3: Understanding the force existing between nucleons and n-p and p-p scattering.

CO4: Working principle of nuclear reactors and nuclear interactions.

CO5: Classification of elementary particles symmetry.

Department: PHYSICS

Year: III Semester: VI

Subject Name: Spectroscopy

Sub.Code:

CO1: It gives an introduction about electromagnetic spectrum, interaction between electromagnetic radiation and matters. Also it deals with atomic and molecular energy levels and electronic transitions.

CO2: Microwave spectroscopy details about different types of molecules, molecular rotational motions, energy levels, absorption spectra and selection rules.

CO3: Various types of molecular vibrational motions, energy levels, spectra and selection rules are given in the infrared spectroscopy.

CO4: Raman spectroscopy gives an understanding of Raman effect, Photoelectric effect, work function and Raman spectra of different types of molecules.

CO5: Structural and functional group of chemical compounds and newly synthesised compounds can be determined.

CO6: For each spectroscopic method studied, sketching the basic components of the instrumentation and understanding their operation are discussed in instrumentation section.

Department: PHYSICS

Year: III Semester: VI

Subject Name: Energy Physics

Sub.Code:

(Learning outcome/Acquisition)

CO1: Understanding world's reserve of commercial energy sources and their availability and applications.

CO2: Uses and applications of solar thermal energy.

CO3: Students will understand the working and principle of photovoltaic systems.

CO4: Awareness of biomass conversion technologies and methods for obtaining energy from biomass.

CO5: Knowledge of Wind energy, Ocean thermal energy, tidal power energy advantages and limitation.

Department: PHYSICS

Year: III Semester: V&VI

Subject Name: Practical - III

Sub.Code: GMPHP3

(Learning outcome/Acquisition)

CO1: Determining the Young's modulus of the given glass bar by forming elliptical fringes.

CO2: Finding the Cauchy's constant values by using spectrometer grating and prism.

CO3: Determining the wavelength of different colors in the visible spectrum by employing oblique incidence method.

CO4: Measuring the wavelength of different colors and Hartman's constants in the visible spectrum formed by prism.

CO5: Determining the angles of emergence for different angles of incidence and draw the I1 and I2 curve to calculate the refractive index of the given prism.

CO6: To determine the absolute capacitance of a capacitor using a ballistic galvanometer.

CO7: By using a ballistic galvanometer finding the mutual inductance of the given pair of coils.

CO8: Finding the resistance of the given coil using ballistic galvanometer and estimating the specific resistance of the material of the coil.

CO9: Determination of the voltage sensitiveness of the given mirror galvanometer and hence to find the EMF of thermocouple for various temperature differences between the junctions.

CO10: Calibration of a given high range voltmeter using the potentiometer.

CO11: Calculating the temperature coefficient of resistance using potentiometer principle.

CO12: Verification of Thevenin's and Norton's theorem by constructing the network circuits.

CO13: Comparison of mutual inductances of the given pairs of coils using ballistic galvanometer.

CO14: To find the angle of deviation for different angles of incidence and calculate the refractive index of the material of the glass prism by drawing i-d curve.

Department: PHYSICS

Year: III Semester: V&VI

Subject Name: Practical - IV

Sub.Code: GMPHP4

(Learning outcome/Acquisition)

CO1: Constructing the dual power supply using given ICs.

CO2: Studying the conducting characteristics at different modes for a given field effect transistor.

CO3: Verifying the truth tables of basic logic gates AND, OR, NOR by using NAND and NOR gates as universal building block.

CO4: Constructing the single stage amplifier with and without feedback connection.

CO5: Designing a Wein's bridge oscillator and determine the frequency of oscillations.

CO6: Constructing a Colpitt's oscillator and Hartley oscillator using a transistor and find its frequency of oscillations for different values of capacitance.

CO7: Using 555 timer constructing an astable multi vibrator.

CO8: Monostable and multi vibrator designing using 555 timer.

CO9: The addition and subtraction of two given input voltages using Operational amplifier.

CO10: Designing differentiator and integrator circuits using Operational amplifier.

CO11: Constructing the Low pass and high pass filters and study their frequency response curves by using Operational amplifier.

CO12: Designing the half adder and full adder circuits and verifying their truth table using ICs.

Department: PHYSICS

Year: III Semester: V&VI

Subject Name: Practical - V

Sub.Code: GMPHP5

(Learning outcome/Acquisition)

CO1: By reading the two given numbers through key board and perform single arithmetic operations.

CO2: Testing the validity of any entered character whether it belongs to the alphabetical set or a number or a special character.

CO3: Finding the sum of series using loop conditions in C++ programming.

CO4: finding the factorial of a number by using function declaration using return statement.

CO5: Read a set of numbers from a standard input device and find out the largest number in a given array and sort them in ascending and descending order.

CO6: Read the elements of the given two matrices of a given order and perform the matrix addition, transportation and display the results.

CO7: Display the content of an array using pointer arithmetic and display the contents of class objects in a given format.

CO8: Generating a series of Fibonacci numbers using constructor.

CO9: Using the inheritance concept read the given information and display the class containing the details.

CO10: Applying the C++ programming to find the time period of a given pendulum of length L in a gravitational field.

CO11: Developing C++ program to calculate the Young's modulus of a material from the data obtained from uniform bending method.

CO12: Solving the quadratic equations using C++ program.

CO13: Multiplication of given two matrices of different orders and checking with C++ programming.

ALLIED Physics

Department: Physics

Subject Name: Allied Physics – I (Mathematics)

Year: I Semester: I

Sub.Code: SAPH11

(Learning outcome/Acquisition)

CO1: Beam theory is used to design and analysis of wide range of structures in construction and it is also used in understanding the physical properties of rigid materials.

CO2: The study of surface tension and viscosity gives an insight about the properties of liquids such as basic molecular interactions, the viscous nature of liquid and the flow of liquids.

CO3: An introduction about Sound theory enables the different types of vibrations to understand about the vibrational motion of a body.

CO4: The thermal properties of matters such as conduction, convection and radiation are studied in thermal physics.

CO5: Wave theory of light including interference, diffraction and polarization empowers the applications involved in designing the various types of lenses used in day-today life.

Department: Physics

Subject Name: Allied Physics Practical - I (Mathematics)

Year: I Semester: I

Sub.Code:SAPHP1

(Learning outcome/Acquisition)

CO1: To determine the Young's modulus of the material of a bar by Non-uniform bending method using pin and microscope.

CO2: To determine the Young's modulus of the material of the bar by uniform bending method using optic lever and telescope.

CO3: To determine rigidity modulus of the material using torsion pendulum method with and without mass and calculating the moment of inertia of the disc.

CO4: To determine the coefficient of viscosity of a highly viscous liquid (Such as castor oil) by Stokes' method.

CO5: To determine the coefficient of viscosity of a liquid using variable pressure head method.

CO6: To determine the thermal conductivity of a given bad conductor.

CO7: Finding the dispersive power of prism using spectrometer.

CO8: To determine the wavelength of the prominent lines of mercury light using grating.

CO9: To determine the thickness of a wire using air wedge method.

CO10: To determine the frequency of electrically maintained tuning fork by Melde's string method.

Department: Physics

Subject Name: Allied Physics - II (Mathematics)

Year: I Semester: II

Sub.Code:

(Learning outcome/Acquisition)

CO1: Basic electricity laws and their directional conventions are emphasized.

CO2: Elemental theory of magnetism, the properties of various magnetic materials and introduction about electromagnetism are underscored.

CO3: The properties and working principles of electronic components such as diodes, transistors and electronic devices such as amplifier, oscillators are given. Number systems and logical circuits are discussed.

CO4: A study about atoms, nuclei and basic nuclear reactions are given.

CO5: It features the projectile motions and relativity theory and their applications in everyday life.

Department: Physics

Year: I Semester: I

Subject Name: Allied Physics Practical - II (Mathematics)

Sub.Code:

(Learning outcome/Acquisition)

CO1: Calibration of low range voltmeter using potentiometer.

CO2: To calibrate the given ammeter using potentiometer.

CO3: Studying the frequency response curve for different resistance values by forming series resonance circuit.

CO4: Studying the frequency response curve for different resistance values by forming parallel resonance circuit.

CO5: To construct the basic logic gates and verify their truth tables using discrete components.

CO6: To study the conducting characteristics of Zener diode.

CO7: To study the characteristics of a transistor and to find its amplification factor by CE mode.

CO8:By using a ballistic galvanometer finding the mutual inductance of the given pair of coils.

CO9: Construct an Owen's bridge and determine the self-inductance of an unknown coil.

CO10: Determining the earth's magnetic induction using tangent galvanometer.

Department: Physics
Subject Name: Allied Physics - I (Chemistry)

Year: II Semester: III
Sub.Code: JAPH11

(Learning outcome/Acquisition)

CO1: Beam theory is used to design and analysis of wide range of structures in construction and it is also used in understanding the physical properties of rigid materials.

CO2: The study of surface tension and viscosity gives an insight about the properties of liquids such as basic molecular interactions, the viscous nature of liquid and the flow of liquids.

CO3: An introduction about Sound theory enables the different types of vibrations to understand about the vibrational motion of a body.

CO4: The thermal properties of matters such as conduction, convection and radiation are studied in thermal physics.

CO5: Wave theory of light including interference, diffraction and polarization empowers the applications involved in designing the various types of lenses used in day-today life.

Department: Physics
Subject Name: Allied Physics - II

Year: II Semester: IV
Sub.Code:

(Learning outcome/Acquisition)

CO1: Basic electricity laws and their directional conventions are emphasized.

CO2: Elemental theory of magnetism, the properties of various magnetic materials and introduction about electromagnetism are underscored.

CO3: The properties and working principles of electronic components such as diodes, transistors and electronic devices such as amplifier, oscillators are given. Number systems and logical circuits are discussed.

CO4: A study about atoms, nuclei and basic nuclear reactions are given.

CO5: It features the projectile motions and relativity theory and their applications in everyday life.

Department: Physics

Year: II Semester: I& II

Subject Name: Allied Physics Practical - I (Chemistry)

Sub.Code:

(Learning outcome/Acquisition)

CO1: To determine the Young's modulus of the material of the bar by uniform bending method using pin and microscope.

CO2: To determine the Young's modulus of the material of a bar by Non-uniform bending method using optic lever and telescope.

CO3: To determine rigidity modulus of the material using torsion pendulum method with and without mass and calculating the moment of inertia of the disc.

CO4: To determine the coefficient of viscosity of a highly viscous liquid (Such as castor oil) by Stokes' method.

CO5: To determine the coefficient of viscosity of a liquid using variable pressure head method.

CO6: To determine the thermal conductivity of a given bad conductor.

CO7: Calibration of low range voltmeter using potentiometer.

CO8: To calibrate the given ammeter using potentiometer.

CO9: Studying the frequency response curve for different resistance values by forming series resonance circuit.

CO10: To construct the basic logic gates and verify their truth tables using discrete components.

CO11: To study the conducting characteristics of Zener diode.

CO12: To determine the frequency of electrically maintained tuning fork by Melde's string method.

CO13: Finding the refractive index of the prism using spectrometer.

CO14: Determining the wavelength of different colors in the visible spectrum by employing normal incidence method.

CO15: To determine the thickness of a wire using air wedge method.

Department: PHYSICS

M.Sc. Physics

Year: I Semester: I

Subject Name: Classical Mechanics

Sub.Code: PPHM11

(Learning outcome/Acquisition)

CO1: D'Alembert's Principle and Lagrange's equation enables to understand the mechanics of a particle and system of particles and also applications of Lagrange's equation

CO2: To understand about Motion under one body and also two body, inverse square law and unbound motion by using the Rutherford α particle scattering

CO3: To understand the mechanics, displacement, rotation, energy of rigid body with the help of Euler's equation

CO4: To understand Hamilton's transformation, Canonical Transformations and also the variables of particles by using Kepler action angle

CO5: To understand about the Oscillation like Stable and unstable equilibrium, double pendulum and to study their properties

Department: PHYSICS

M.Sc. Physics

Year: I Semester: I

Subject Name: Mathematical Physics - I

Sub.Code: PPHM12

(Learning outcome/Acquisition)

CO1: Vector theory enables to understand the physical quantities having directions and magnitude. The application of vector theory is useful in studying the hydrodynamic behavior of flowing fluids such as gases and liquids.

CO2: Matrix theory is useful in finding Eigen vectors and Eigen values related to the problems in quantum mechanics. A system of differential equations can be solved using matrix calculations.

CO3: The general solutions and a set of solutions for second order differential equations can be obtained by special functions and error functions.

CO4: Any complex periodic, continuous functions expressed in terms of a series of trigonometric functions such as sines and cosines can be understanding by Fourier and Laplace Integrals and their corresponding transformations.

Department: PHYSICS M.Sc. Physics
Subject Name: Non Linear Dynamics

Year: I Semester: I
Sub.Code: PPHM14

(Learning outcome/Acquisition)

After the end this course, students will be able to

CO1: Understand the basic knowledge about nonlinear systems and also analyse nonlinear dynamical systems that rise to oscillations.

CO2: Determine the stability and analyse the various types of bifurcations in one dimension and two dimension.

CO3: Get an introduction to chaos and also analyse the chaotic dynamics of electronic circuits.

CO4: Known the information and applications of fractals.

CO5: Get sound knowledge in linear, nonlinear dispersive wave propagation, properties and applications of solutions.

Department: PHYSICS M.Sc
Subject Name: Integrated Electronics

Year: I Semester: I
Sub.Code: PPHM13

(Learning outcome/Acquisition)

CO1: Device and application of device and VLSI technology.

CO2: Explain logic families of TTL, DTL, RTL and flip-flops.

CO3: To understand the OP-Amp characterization and its applications.

CO4: Working modes of timer 555, 565 and applications of multiplexer.

CO5 : To understand sensors and transducers.

Department: PHYSICS M.Sc. Physics
Subject Name: Practical - I
General Physics Experiments - I

Year: I Semester: I
Sub.Code: PPHL11

(Learning outcome/Acquisition)

CO1: Determination of susceptibility of the given paramagnetic solution and estimate the Magnetic Moment and Bohr Magnetron for various normalities.

CO2: Determination of Cauchy's Constant by spectrometer.

CO3: Determination of wavelength of a source and thickness of a thin transparent medium by forming interference pattern.

CO4: Determination of self-inductance of the given coil having different turns.

CO5: Calculation of force constants of a molecule from the vibrational spectral data.

CO6: Determination of wavelength of solar absorption spectrum and realize the importance of Fraunhofer lines.

CO7: Determination of thickness of a very thin material using two different methods such as, LASER diffraction and Air wedge method and compare the results.

Department: PHYSICS
Subject Name: Practical - II
Electronics Experiments - I

M.Sc.

Year: I Semester: I
Sub.Code: PPHL12

(Learning outcome/Acquisition)

CO1: Construction of a series voltage regulator using transistor and study the regulation factors to find out the percentage of regulation.

CO2: Designing of a Schmitt trigger circuit using transistors and trace the input and output waveforms.

CO3: Construction of a triangular and a ramp wave generator using Operational Amplifier (OP Amp) and construction of 555 timer based square wave generator.

CO4: Construction and study of modulus counters (2 to 9) using IC 7490 or any equivalent IC. Using a 7 segment decoder and a 7 segment display to show output.

CO5: Construction of analog to digital converter using comparator and an encoder - Measurement of the digital outputs for various input voltages.

CO6: Construction of a constant current source using OP Amp and transistor/ FET and to study the characteristics.

CO7: To study the transfer characteristics of Field effect transistor (FET) and measure parameters from the characteristics. Designing of a voltage amplifier using FET.

Department: PHYSICS **M.Sc. Physics** **Year: I Semester: II**
Subject Name: Mathematical Physics - II **Sub.Code:**

(Learning outcome/Acquisition)

The purpose of the course is to introduce students to Mathematical Physics and to develop required mathematical skills to solve problems in quantum mechanics, electrodynamics and other fields of theoretical physics. The course will review and develop the theory of: complex analysis and applications to special functions; asymptotic expansions; ordinary and partial differential equations, in particular, characteristics, integral transform and Green function techniques; Group theory and Tensors.

CO1: apply techniques of complex analysis, such as contour integrals and analytic continuation, to the study of special functions of mathematical physics

CO2: solve partial differential equations with appropriate initial or boundary conditions with Green function techniques

CO3: identify different special mathematical functions;

CO4 define and manipulate the Group theory and Tensors and be able to derive their various properties

CO5: use the Legendre and Hermite polynomials and other special functions to solve physics problems

Department: PHYSICS **Year: I Semester: I**
Subject Name: Condensed Matter Physics **Sub.Code:**

(Learning outcome/Acquisition)

CO1: To understand the basic crystallography.

CO2: Explain to understand lattice vibration photons and phonons.

CO3: To understand energy band of semi conductors and hall effect properties.

CO4: To understand the different types of magnetism like Dia, Para and Ferro.

CO5: To understand super conductivity meissner DC and AC Josephson effects.

Department: PHYSICS **M.Sc. Physics** **Year: I Semester: II**

Subject Name: Microprocessor 8085 and Microcontroller 8051

Sub.Code:

(Learning outcome/Acquisition)

CO1: To introduce 8085 architectures and develop the skills for writing the programming in assembly language.

CO2: Students can able to recall and apply a basic concept of digital fundamentals to Microprocessor based personal computer system.

CO3: To introduce the basic concept of interfacing memory and peripheral devices i.e., external ports such as pen drives, hard disks etc...

CO4: Students have an understanding of microcontroller 8051 architectures, memory and peripherals including timers, counters and converters.

CO5: The study of applications of microprocessor gives interfacing and assembly language programs for the measurement, control and display of electrical, physical, and some other quantities such as temperature, strain and various types of wave generation.

Department: PHYSICS

M.Sc. Physics

Year: I Semester: II

Subject Name: Numerical Methods and Programming in C++

Sub.Code:

(Learning outcome/Acquisition)

CO1: Students can understand the various numerical methods to solve the physical problems.

CO2: Get through knowledge in linear curve fitting and interpolation formula.

CO3: To use interpolation techniques to approximate the value of the integral for the functions and also understand where to use various interpolation formulae in numerical integration.

CO4: Students will be able to distinguish between linear, nonlinear, partial and ordinary differential equations and also solve the various partial differential equations.

CO5: Understand how to write C++ programme for various problem solving method such as Euler's method, Runge –Kutta method, Newton Raphson method, Gauss eliminations method, etc.

Department: PHYSICS

Year: I Semester: II

Subject Name: Practical - III

Sub. Code: PPHL21

General Physics Experiments - II

(Learning outcome/Acquisition)

CO1: Determination of Young's modulus, Bulk modulus, Rigidity modulus, Poisson's ratio and compressibility of the given material by forming Hyperbolic fringes.

CO2: Measuring the velocity of ultrasonic sound in the given liquid and compressibility of the liquid.

CO3: Determination of wave length of the light source or width of the double slit using Laser source for a) standard kit b) lab made double slit.

CO4: Determination of mutual inductance between a pair of coils. Study of variation of mutual inductance for various distances and angles between the coils and determination of coefficient of coupling in each case.

CO5: Determination of numerical aperture and acceptance angle and to study the attenuation in the fiber.

Department: PHYSICS

M.Sc. Physics

Year: I Semester: II

Subject Name: Practical - IV

Sub. Code: PPHL22

Electronics Experiments - II

(Learning outcome/Acquisition)

CO1: Design and construction of II order Active Filters (Low pass, High Pass and band pass) using IC 741 for a particular frequency and draw frequency response curve for each case.

CO2: Characteristics study of UJT and construction of a relaxation Oscillator. using UJT to produce the saw tooth wave. To study the frequency response of the output for various R and C values.

CO3: Design a Phase shifter circuit using Op-Amp - Measurement of the Phase shift of the input wave for various R and C combinations and make a comparison of the experimental output with theoretical values.

CO4: Construction of Weighted Resistor and R-2R Ladder Network D/A converters using IC 741.

CO5: Characteristics study of SCR - Construction of a power controller device using SCR.

CO6: Construction of Code converters using ICs - Tabulate input and output for various decimal numbers, BCD to Excess-3, BCD to Gray, Excess-3 to BCD and Gray to Excess-3.

CO7: Learn to Solve the given 2 variable simultaneous equations by constructing the analog computers using Op-Amps.

Department: Physics M.Sc. Physics

Year: II Semester: III

Subject Name: Quantum Mechanics - I

Subject code: KPHM31

Co1: Conceiving the fundamentals of wave mechanics

Co2: Gaining knowledge about operators and matrix mechanics

Co3: Distinguishing the equation of motion and density matrix

Co4: Understanding an exactly soluble system

Co5: Familiar with the theory of angular momentum

Department: PHYSICS

M.Sc. Physics

Year: II Semester: III

Subject Name: Electromagnetic Theory

Sub.Code: KPHM32

(Learning outcome/Acquisition)

CO1: Students will learn scientific, mathematical and engineering principles that enable them to understand forces, fields, and waves; know how devices work that use those principles and phenomena; and be familiar with the historical context in which development of knowledge and devices occurred.

CO2: Apply vector calculus to static electric-magnetic fields in different engineering situations.

CO3: Analyze Maxwell's equation in different forms (differential and integral) and apply them to diverse engineering problems.

CO4: Examine the phenomena of wave propagation in different media and its interfaces and in applications of microwave engineering.

CO5: Analyze the nature of electromagnetic wave propagation in guided medium which are

used in microwave applications.

Department: PHYSICS

M.Sc. Physics

Year: II Semester: III

Subject Name: Statistical Mechanics

Sub.Code: KPHM33

(Learning outcome/Acquisition)

Students will be able to

CO1: Understand the statistical nature of concept about phase space, types of ensembles and equilibrium and connection between statistical and thermodynamical quantities.

CO2: Know the concept and role of indistinguishability in the theory of gases and the results expected from classical consideration (Maxwell-Boltzmann distribution).

CO3: Understand quantum statistical mechanics (Bose-Einstein, Fermi-Dirac distribution), where they are applicable, and how they differ from classical statistical mechanics.

CO4: Know how to apply the principles of statistical mechanics to problems (specific heat capacity of a solid by Dulong-Petit law, Einstein theory, Debye theory).

CO5: Know the phase equilibrium condition and identify the types of phase transition of physical systems.

Department: PHYSICS

M.Sc. Physics

Year: II Semester: III

Subject Name: Research Methodology

Sub.Code: KPHM34

(Learning outcome/Acquisition)

The primary objective of this course is to develop a research orientation among the scholars and to acquaint them with fundamentals of research methods. Specifically, the course aims at introducing them to the basic concepts used in research and to scientific research methods and their approach.

CO1: To develop understanding of the basic framework of research process.

CO2: To develop an understanding of various research designs and techniques.

CO3: To identify various sources of information for literature review and data collection.

CO4: To develop an understanding of the ethical dimensions of conducting applied research.

CO5: Appreciate the components of scholarly writing and evaluate its quality.

Department: PHYSICS

M.Sc. Physics

Year: II Semester: IV

Subject Name: Quantum Mechanics - II

Sub.Code:

(Learning outcome/Acquisition)

CO1&2: Perturbation theory is an approximate method that solves the Schrodinger equation of the complex system.

CO3: To examine and predict the properties of identical quantum particles.

CO4: Able to explain Dirac equation and the existence of antiparticles.

CO5: Recognize the connection between relativity and quantum mechanics.

Department: PHYSICS

M.Sc. Physics

Year: II Semester: IV

Subject Name: Spectroscopy

Sub.Code:

(Learning outcome/Acquisition)

After completion of this course, student will be able to:

CO1: Understand the fundamental aspects of molecular physics and also get the information about molecular dimensions and atomic masses from the obtained characteristic peaks in microwave spectroscopy.

CO2: Predict the number of fundamental modes of vibration of a molecule and understand the influences of force constants and reduced masses on the frequency of band vibrations from infrared spectroscopy.

CO3: identify molecules and study chemical bonding from Raman spectroscopy.

CO4: get sound knowledge in magnetic properties of nuclei, molecular structure and crystal defects from Resonance spectroscopy.

CO5: understand how the surface is very sensitive and also how to overcome the conventional Raman scattering.

Department: PHYSICS

M.Sc. Physics

Year: II Semester: IV

Subject Name: Nuclear and Particle Physics

Sub.Code:

(Learning outcome/Acquisition)

CO1: General properties of atomic nucleus. Why do nuclei emit alpha, beta particles? How do we interpret the special properties of nuclei such as stability.

CO2: Knowledge of nuclear decay process.

CO3: Understanding the force existing between nucleons and n-p and p-p scattering.

CO4: Working principle of nuclear reactors and nuclear interactions.

CO5: Classification of elementary particles symmetry.

Department: PHYSICS M.Sc. Physics

Year: II Semester: III

Subject Name: Practical - III

Sub. Code:

General Physics Experiments - II

(Learning outcome/Acquisition)

CO1: Determination of magnetic susceptibility of the given sample by Guoy's balance method.

CO2: Determination of Young's modulus, Bulk modulus, Rigidity modulus, Poisson's ratio and compressibility of the given material by forming elliptical fringes.

CO3: Determination of temperature co-efficient and band gap of a given semiconductor thermistor using Carey-Foster Bridge.

CO4: By study the Hall effect determine Hall voltage, Hall coefficient, Carrier density, Mobility of charge carriers and resistivity.

CO5: Measurement of resistivity and energy band gap of a given semiconductor material using Four Probe principle.

CO6: Formation of equipotential lines for parallel plates, circular plates, plates of irregular shape and determine the electric field between the equipotential lines.

CO7: Formation of acoustic grating in a given liquid using a crystal to determine the velocity of ultrasonic wave in the liquid and compressibility of the liquid. Repeat for another liquid and hence find the ratio of compressibility and velocity.

CO8: Temperature co-efficient of a forward biased diode. Measure the resistance of a forward biased diode at three different temperatures and hence find the temperature co-efficient.

CO9: Characteristic Study of Phototransistor using a light sources of different wave length and light sources of different intensities.

CO10: Determination of dielectric constant of a liquid using LCR circuit.

CO11: Formation and tracing of magnetic hysteresis loop for the given specimen to determine coercivity and retentivity.

CO12: Determination of resistivity of the given samples using two probe technique.

Department: PHYSICS M.Sc. Physics

Year: II Semester: IV

Subject Name: Practical - IV

Sub. Code:

Part A: Microprocessor Programming

(Learning outcome/Acquisition)

CO1: Arithmetic calculations such as addition, subtraction, multiplication and division of two 8 bit and two 16 bit numbers.

CO2: Data manipulation such as a) Arrange the given data items in ascending or descending order b) Finding the Minimum and Maximum value in the given data set, c) Search of a given character/number in the given data set.

CO3: Using system call and counters working principle display a character/number on the 7 segment display of the Kit using Monitor Call.

CO4: Moving a block of data from one memory to another memory location.

CO5: Calculation of time delay for a given interval and shifting a given character from left to right / right to left on the 7 segment displays with the specified time interval.

CO6: Interfacing of analog to digital converter with 8085 and conversion of analog input to digital.

Interfacing of digital to analog converter with 8085 and conversion of digital input to analog.

CO7: Using the interfacing technique generate different wave forms such as Square, rectangular, ramp and triangular.

PART B: C++ Programming

CO1: Using C++ program to fit a straight line using the data using the principle of least Square method and the principle of linear interpolation.

CO2: Solve the system of simultaneous equations to find the solutions using Gauss elimination method.

CO3: Applying Runge-Kutta 4th order method to solve the given 1st order differential equation using numerical differentiation.

CO4: Measuring the area under the curve using the numerical integration method and write C++ programs for Simpson 1/3rd rule, Simpson 3/8 rule.

CO5: Calculation of Eigen Values and Eigen Vectors using analytical method and compare the results produced by a C++ program.

CO6: Multiplication of given matrices and rotation of the given matrix.

CO7: C++ program to verify the Newton's law of cooling from the given experimental data using numerical differentiation.

CO8: Solution of the given equations using Newton Raphson method with the help of C++ program and manual calculation.

DEPARTMENT OF PHYSICS

M.Sc., PROJECT

1. Knowledge about synthesis and characterization of various types of crystal provides an insight of the importance of crystals in human life.
2. Preparation of the films of different materials enables the students to know about the coatings in everyday life.
3. The application of nanomaterials is realised by studying their preparation and properties under different conditions.
4. Theoretical calculations in the area of non – linear dynamics is helpful in solving higher order differential equations used to designing new equipments having non – linear properties.
5. Understanding the working principles of electrical and electronics components is fruitful in the field of making electronic circuits and printed circuit boards.

Department: PHYSICS M.Phil. Physics

Subject Name: Advanced Physics

Co1: Analysed Quantum field theory

Co2: Understanding various nuclear models

Co3: Familiar with thin films and Nano techniques

Co4: Studied about super conductors and applications

Co5: Familiar with different types of characterizations in materials

Department: PHYSICS M.Phil. Physics

Subject Name: Materials Science of thin films

Co1: Clear with substrate selection and structures

Co2: Understanding the thermodynamics of nucleation

Co3: Understanding the thickness measurement on thin films

Co4: Studied various surface characterizations

Co5: Understanding the chemical characterization of surface and films

Department: PHYSICS M.Phil. Physics

Subject Name: Nano Physics

Co1: Understanding about synthesis and processing of nanoparticles

Co2: Familiar with the quantum concepts of Nano-structures

Co3: Studied the basic properties of Nanoparticles

Co4: Understanding the characterization of Nano materials

Co5: Studying different applications of Nano materials

Department: PHYSICS M.Phil. Physics

Subject Name: Research Methodology

The primary objective of this course is to develop a research orientation among the scholars and to acquaint them with fundamentals of research methods. Specifically, the course aims at introducing them to the basic concepts used in research and to scientific research methods and their approach.

CO1: To develop understanding of the basic framework of research process.

CO2: To develop an understanding of various research designs and techniques.

CO3: Knowledge about synthesis and characterization of various types of crystal provides an insight of the importance of crystals in human life.

CO4: Preparation of the films of different materials enables the students to know about the coatings in everyday life.

CO5: The application of nanomaterials is realised by studying their preparation and properties under different conditions.

Department: PHYSICS

M.Phil. Physics

Subject Name: Project

SUB.CODE: MPHC2D

1. Student select an individual project.
2. Knowledge about synthesis and characterization of various types of crystal provides an insight of the importance of crystals in human life.
3. Preparation of the films of different materials enables the students to know about the coatings in everyday life.
4. The application of nanomaterials is realised by studying their preparation and properties under different conditions.

Department of Chemistry
Course Learning Outcome

Department: Chemistry

Year: I Semester: I

Subject: INORGANIC CHEMISTRY-I

Subject Code: SMCH11

Learning Outcomes

Students are able to,

- CO1 Study the atomic structure from wave mechanical concept
- CO2 Know the arrangement of elements in the periodic table and the periodic properties.
- CO3 Understand the different kinds of chemical forces in molecules.
- CO4 Know the nature of compounds formed by s-block elements.
- CO5 Acquire the knowledge about p-block elements

Department: Chemistry

Year: I Semester: I

Subject: PHYSICAL CHEMISTRY-I

Subject Code: SMCH12

Learning Outcomes

Students are able to,

- CO1 Understand the gaseous behavior using the kinetic molecular model.
- CO2 Analyze the difference between thermal and photochemical reaction & its laws.
- CO3 Gain knowledge in nuclear chemistry, applications of radioisotopes & its reaction mechanism

CO4 Explain the concept of crystal lattices and structure of crystals.

CO5 Demonstrate the concept behind dilute solutions and its properties.

Department: Chemistry

Year: I Semester: I

Subject: INORGANIC QUANTITATIVE ANALYSIS -I (VOLUMETRIC) Subject Code: SMCHP1

Learning Outcomes

Students are able to,

CO1 Enable the students to acquire the quantitative skills in volumetric analysis.

CO2 At the end of the course, the students should be able to plan experimental projects and execute them.

CO3 Develop skills on various types of titration methods

CO4 Experts in acidimetry, alkalimetry & permanganometric titrations

CO5 Use modern instruments, techniques & able to record the results of the experiments

CO6 Design, carry out, record & analyze the results of chemical experiments.

CO7 Knows the proper procedure & regulations for safe handling & use of chemicals.

Department: Chemistry

Year: I Semester: II

Subject: **INORGANIC CHEMISTRY-II**

Subject Code:

Learning Outcomes

Students are able to,

CO1 Develop an understanding of the noble gases, its preparation and properties.

CO2 Acquire broad knowledge on d-block elements and its important compounds.

CO3 Discuss and define the chemistry behind f-block elements

CO4 Explain the concept behind metallurgy

CO5 Be skilled in concept of qualitative and gravimetric analysis

Department: Chemistry

Year: I Semester: II

Subject: **ORGANIC CHEMISTRY-I**

Subject Code:

Learning Outcomes

Students are able to,

CO1 Know and name the functional groups & different classes of organic compounds.

CO2 Develop the knowledge on fundamental concepts of organic chemistry.

CO3 Recognize the hydrocarbons classifications & its mechanisms.

CO4 Explore ideas on halogen derivatives & various types of reactions

CO5 Understand the types of alcohols, ethers & their preparations and uses.

Department: Chemistry

Year: I Semester: II

Subject: **INORGANIC QUANTITATIVE ANALYSIS -II (VOLUMETRIC)** Subject Code:

Learning Outcomes

Students are able to,

CO1 Enable the students to acquire the quantitative skills in volumetric analysis.

CO2 At the end of the course, the students should be able to plan experimental projects and execute them.

CO3 Develop skills on various types of titration methods

CO4 Expert in iodometry, dichrometry & complexometric titrations.

CO5 Use modern instruments, techniques & able to record the results of the experiments

CO6 Design, carry out, record & analyze the results of chemical experiments.

CO7 Knows the proper procedure & regulations for safe handling & use of chemicals.

Department: Chemistry

Year: II Semester: III

Subject: **ORGANIC CHEMISTRY-II**

Subject Code: JMCH31

Learning Outcomes

Students are able to,

- CO1 Understand the structure and reactivity of carbonyl compounds
- CO2 Acquire knowledge on carboxylic acid & their derivatives
- CO3 Learn the preparation, properties & uses of organo metallic and sulphur compounds.
- CO4 Explore strong understanding of types of tautomerism
- CO5 Know the importance and reactions of alicyclic compounds.

Department: Chemistry

Year: II Semester: III

Subject: **AGRO CHEMISTRY**

Subject Code: JSCH3A

Learning Outcomes

- CO1: Learn about Fertilizers, Manures, their applications and handling.
- CO2: Understand the Pesticides, Insecticides and Fungicides.
- CO3: Know about carbohydrates, amino acids, proteins and nucleic acid.
- CO4: Study about Soil and their main components of soil.
- CO5: Know about Characteristics of soil.

Department: Chemistry

Year: II Semester: IV

Subject: **CHEMISTRY IN MEDICINE**

Subject Code:

Learning Outcomes

Students are able to,

- CO1 Acquire knowledge of first aid and the important rules
- CO2 Know the common chemicals in medicine
- CO3 Have awareness of common diseases & the preventive measures.

- CO4 Learn the diagnostic tests and blood grouping.
CO5 Know the importance and classifications of vitamins.

Department: Chemistry

Year:II Semester: IV

Subject: **PHYSICAL CHEMISTRY -II**

Subject Code:

Learning Outcomes

- CO1: Learn about Basic concepts of Thermodynamics and related problems.
CO2: Understand the second law of thermodynamics and related problems.
CO3: Know about Chemical Equilibrium.
CO4: Study about Solutions.
CO5: Know about Electrochemistry and related problems.

Department: Chemistry

Year: II Semester: IV

Subject:INORGANIC QUANTITATIVE ANALYSIS

Subject Code:

Learning Outcomes

Students are able to,

- CO1 Enable the students to understand various procedures in salt analysis.
CO2 Create awareness on ecofriendly approach in salt analysis
CO3 Use modern instruments, techniques & able to record the results of the experiments
CO4 Design, carry out, record & analyze the results of chemical experiments.
CO5 Knows the proper procedure & regulations for safe handling & use of chemicals.

Department: Chemistry

Year: III Semester: V

Subject:ORGANIC CHEMISTRY – III

Subject Code: GMCH51

Learning Outcomes

- CO1 Understand the concept of stereochemistry

CO2 Study about the electrophilic and nucleophilic substitution

CO3 Learn about the polynuclear hydrocarbon

CO4 Acquire knowledge on heterocyclic compounds

CO5 Understand the theory and role of dyes

Department: Chemistry

Year: III Semester: V

Subject: **PHYSICAL CHEMISTRY – III**

Subject Code: GMCH52

Learning Outcomes

CO1 Understand the knowledge on chemical kinetics

CO2 Gain the idea of ionic equilibrium

CO3 Study the basics of electrochemistry

CO4 Understand the bio inorganic chemistry

CO5 Learn about the photo inorganic chemistry

Department: Chemistry

Year: III Semester: V

Subject: **POLYMER CHEMISTRY – I (ELECTIVE)**

Subject Code: GMCH5A

Learning Outcomes

CO1 Study the introduction and classifications of polymers

CO2 Import the knowledge of properties and characteristics of polymers

CO3 Learn about the various polymerization techniques and processing

CO4 Acquire knowledge on commercial polymers

CO5 Gain the knowledge of advances in polymers

Department: Chemistry

Year: III Semester: V

Subject: **ANALYTICAL CHEMISTRY – I**

Subject Code: GMCH5C

Learning Outcomes

- CO1 Understand the concept of errors and data analysis
- CO2 Study about the water analysis
- CO3 Learn about the fuel analysis
- CO4 Study about the electroanalytical techniques
- CO5 Acquire knowledge on spectro analytical and thermo analytical methods

Department: Chemistry

Year: III Semester: VI

Subject: **INORGANIC CHEMISTRY – III**

Subject Code: GMCH61

Learning Outcomes

- CO1 Acquire knowledge on noble gases
- CO2 Study the basics of co-ordination chemistry
- CO3 Gain the knowledge of metal carbonyls and metal nitrosyls
- CO4 Understand the bio inorganic chemistry
- CO5 Learn about the photo inorganic chemistry

Department: Chemistry

Year: III Semester: VI

Subject: **ORGANIC CHEMISTRY – IV**

Subject Code: GMCH62

Learning Outcomes

- CO1 Study about the structure of carbohydrate
- CO2 Important of heterocyclic compounds
- CO3 Learn about the alkaloids, terpenes and vitamins
- CO4 Study the mechanism of rearrangement
- CO5 Know about the spectroscopy and organic dyes

Department: Chemistry

Year: III Semester: VI

Subject: **PHYSICAL CHEMISTRY –IV**

Subject Code: GMCH63

Learning Outcomes

- CO1 Important of photochemistry
- CO2 Study about the UV and IR spectroscopy
- CO3 Learn about the Raman, NMR, ESR and Mass spectroscopy
- CO4 Study about the basics of Group theory
- CO5 Know about the nanomaterials

Department: Chemistry

Year: III Semester: VI

Subject: **APPLIED CHEMISTRY – I**

Subject Code: GMCH6B

Learning Outcomes

- CO1 Learn about water technology and water treatment
- CO2 Understand the lubricant oils, greases and emulsion
- CO3 Gain knowledge on ores and alloys
- CO4 Study about the leather chemistry
- CO5 Know about the environmental pollution and its control

Department: Chemistry
VI

Year: III Semester:

Subject: **INORGANIC CHEMISTRY PRACTICAL**
GMCHP3

Subject Code:

Learning Outcomes

- CO1 Learn estimation by gravimetric method
- CO1 Estimate of Lead as lead chromate
- CO2 Estimate of barium as barium chromate
- CO3 Estimate of copper as lead cuprous thiocyanate
- CO4 Estimate of Nickel as Nickel-DMG
- CO5 Estimate of Zinc as Zinc oxinate
- CO6 Understand and carry out the preparation of inorganic compounds (Prussian Blue, Chrome alum potash alum and thio urea etc)

Department: Chemistry

Year: III Semester: VI

Subject: **ORGANIC CHEMISTRY PRACTICAL**

Subject Code: GMCHP4

Learning Outcomes

CO1 Identify the aromatic or aliphatic

CO2 Experts in saturated and unsaturated

CO3 Idea about the presence of nitrogen in organic compounds

CO4 Identify the functional groups

CO5 Prepare single stage aromatic compounds

Department: Chemistry

Year: III Semester:

VI

Subject: **PHYSICAL CHEMISTRY PRACTICAL**
GMCHP5

Subject Code:

Learning Outcomes

CO1 Estimate Ferrous ion by potentiometric methods

CO2 Estimate of acid and Mg by conductometric methods

CO3 Determine the Critical solution temperature for phenol – water system

CO4 Determine the molecular weight of substance by transition temperature

CO5 Determine the Eutectic temperature and composition

Ancillary Chemistry

Department: Chemistry

Year: I Semester: I

Subject: **Allied Chemistry – I (I Zoology)**

Subject Code: SACH11

Learning Outcomes

CO1 Learn about atomic structure and bonding.

CO2 Learn the principles of reactions of organic compounds.

CO3 Study about photochemical reactions.

CO4 Learn about the importance of polymers and polymer science.

CO5 Study about lubricants and some cosmetics in the modern world.

Department: Chemistry

Year: I Semester: I

Subject: **Allied Practical - I : Inorganic Quantitative Analysis** Subject Code: SACHP1

Learning Outcomes

CO1 Enable the students to acquire the quantitative skills in volumetric analysis

CO2 Estimate the oxalic acid

CO3 Estimate the Na_2CO_3

CO4 Estimate the hydrochloric acid

CO5 Estimate of ferrous ammonium sulphate, ferrous sulphate, oxalic acid using Permanganometry

Department: Chemistry

Year: I Semester: II

Subject: **Allied Chemistry – II (I- Zoology)**

Subject Code:

Learning Outcomes

CO1 Learn the chemistry of basic aromatic compounds.

CO2 Understand the nuclear particles and few nuclear reactions

CO3 Know about carbohydrates, amino acids, proteins and nucleic acid.

CO4 Study about fuels, fertilizers, cement and glass.

CO5 Know about some common diseases and the drugs used.

Department: Chemistry

Year: I Semester: II

Subject: **Allied Practical - II: Inorganic Qualitative Analysis** Subject Code:

Learning Outcomes

CO1 Enable the students to understand various procedures in Interfering acidic radicals and Basic radicals.

CO2 Create awareness on ecofriendly approach in salt analysis

CO3 Use modern instruments, techniques & able to record the results of the experiments

CO4 Design, carry out, record & analyze the results of chemical experiments.

CO5 Knows the proper procedure & regulations for safe handling & use of chemicals.

Department: Chemistry

Year: II Semester: III

Subject: **Allied Chemistry – I (II Physics)**

Subject Code: JACH11

Learning Outcomes

CO1 Learn about atomic structure and bonding.

CO2 Learn the principles of reactions of organic compounds.

CO3 Study about photochemical reactions.

CO4 Learn about the importance of polymers and polymer science.

CO5 Study about lubricants and some cosmetics in the modern world.

Department: Chemistry

Year: I Semester: IV

Subject: Allied Chemistry – II (II- Physics)

Subject Code: JACH21

Learning Outcomes

CO1 Learn the chemistry of basic aromatic compounds.

CO2 Understand the nuclear particles and few nuclear reactions

CO3 Know about carbohydrates, amino acids, proteins and nucleic acid.

CO4 Study about fuels, fertilizers, cement and glass.

CO5 Know about some common diseases and the drugs used.

Department: Chemistry

Year: I Semester: I

Subject: Allied Practical - I : Inorganic Quantitative Analysis

Subject Code: JACHP1

Learning Outcomes

CO1 Enable the students to acquire the quantitative skills in volumetric analysis

CO2 Estimate the oxalic acid

- CO3 Estimate the Na_2CO_3
- CO4 Estimate the hydrochloric acid
- CO5 Estimate of ferrous ammonium sulphate, ferrous sulphate, oxalic acid using Permanganometry
- CO6 Expert in iodometry, dichrometry titrations
- CO7 Knows the proper procedure & regulations for safe handling & use of chemicals.

DEPT: Mathematics

Year: I B.SC., Semester: I

SUBJECT NAME: Calculus

SUBJECT CODE: SMMA11

Learning outcomes/Acquisitions

- CO1 Students will come to know the curvature, radius of curvature, centre of curvature in cartesian and polar coordinates.
- CO2 Students will get an in-depth knowledge in pedal equation, involutes, evolutes and asymptotes.
- CO3 Students will come to know singular points(node, cusp, conjugate points). They will also know the tracing of curves.
- CO4 Students will acquire an in-depth knowledge in double and triple integrals. They will also know changing the order of integration, Jacobians and change of variables.
- CO5 Students will be able to evaluate an integrals using Beta and Gamma functions. They will also know the improper integrals.

DEPT: Mathematics

Year: I B.Sc.,

Semester: I

SUBJECT NAME: Classical Algebra

SUBJECT CODE: SMMA12

Learning outcomes/Acquisitions

- CO1: Students will understand the basic principles of roots, relations and other principles of equations
- CO2: Students will know the methods to find the sum of the powers of the roots of an equation

CO3: Students will acquire the knowledge about elementary number system

CO4: Students will be able to find ways to get the divisors of the given equation

CO5: Students will get the ideas to solve particular type of biquadratic and cubic equations

DEPT: Mathematics

Year: I B.Sc.,Physics/Chemistry Semester: I

SUBJECT NAME: Allied Mathematics- Algebra and Differential Equations

SUBJECT CODE: SAMA11

Learning outcomes/Acquisitions

CO1 Students will come to know the formation of Equations. They will gain knowledge in relation between roots and coefficients.

CO2 Students will acquire skill to find approximate solutions to equations using Newton's method and Horner's method.

CO3 Students will get an in-depth knowledge in matrices. They will be able to calculate eigen values and eigen vectors of the matrices. They will come to know how to apply Cayley Hamilton theorem to find the inverse of the matrices.

CO4 Students will understand some basic definitions and terminology associated with differential equations and their solutions. They will be able to form the partial differential equation and to solve the equations in standard form $Pp + Qq = R$.

CO5 Students will understand the Laplace Transform and its existence. They will be able to find the Laplace transform and Inverse Laplace Transform of a function. They will be able to use the method of Laplace transforms to solve initial-value problems for linear differential equations.

DEPT: Mathematics

Year: I B.Sc.,

Semester: II

SUBJECT NAME: Analytical geometry of 3D

SUBJECT CODE:

Learning outcomes/Acquisitions

CO1: Students will know in detail the rectangular coordinate system

CO2: Students will know the equations of planes and its properties

CO3: Students will study the various forms of straight lines and its properties

CO4: Students will understand the basic concepts of a sphere and its properties

CO5: Students will acquire the knowledge of cones and cylinders

DEPT: Mathematics

Year: I B.Sc.,

Semester: II

SUBJECT NAME: Differential Equations

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO 1: Students are able know Clairants Form and simultaneous linear Differential Equation.
- CO 2: Students acquire knowledge about second order linear differential equation with constant coefficients.
- CO 3: Students acquire knowledge about second order linear differential equation with Variable coefficients.
- CO 4: Students gets introduction about Partial Differential equations and its related theorems.
- CO 5: Students come to know about applications of first order equations such as growth, decay and chemical reactions, falling bodies and other rate problems.

DEPT: Mathematics

Year: IB.Sc.,Physics/Chemistry

Semester: II

SUBJECT NAME: Allied Mathematics – Vector Calculus and Fourier Series
SUBJECT CODE:

Learning outcomes/Acquisitions

- CO1 Students will be able to compute gradient and directional derivative, divergence and curl of a vector valued functions. They come to know the properties arising out of these concept.
- CO2 Students will get a knowledge of methods of evaluating integrals of functions of two or three variables over a suitable region in R^2 or R^3 which arise in a natural way in several applications.
- CO3 Students will know the concept of line and surface integrals leading to theorems of Green, Stokes and Gauss
- CO4 Students will be able to apply Green, Stokes and Gauss theorems

which express integrals as a certain double and triple integrals as the case may be.

CO5 Students will acquire an in-depth knowledge in basic concepts relating to Fourier series and to obtain Fourier series development of several functions.

DEPT: Mathematics **Year: IIB.Sc.,** **Semester: III**

SUBJECT NAME: Real Analysis I **SUBJECT CODE:JMMA31**

Learning outcomes/Acquisitions

CO 1: Students are able to know about Real numbers, Field axioms, ordered axioms.

CO 2: Students gets introduction about Sequences.

CO 3: Students gets knowledge about behavior of sequences.

CO 4: Students acquires knowledge about series and Comparison test and Root test.

CO 5: Students studies about alternating series , Leibnitz Test, Abel's Theorem.

DEPT: Mathematics **Year: IIB.Sc.,** **Semester: III**

SUBJECT NAME: Allied I - Statistics I **SUBJECT CODE:JAST11**

Learning outcomes/Acquisitions

CO 1: Students are able to know about curve fitting and fitting of lines .

CO 2: Students will know about Correlation and Regression, Scatter diagram.

CO 3: Students gets knowledge about consisting of data.

CO 4: Students will acquire knowledge about moment generating function and distribution.

CO 5: Students studies about normals and standard normal distribution.

DEPT: Mathematics **Year: II B.Sc.,** **Semester: III**

SUBJECT NAME: Skill Based -Vector Calculus **SUBJECT CODE: JSMA3A**

Learning outcomes/Acquisitions

CO1: Students will deal with the basic theory of vector calculus

CO2: Students will be able to understand the basic concepts of divergence and curl

CO3: Students will be able to find the work done by a force using line integrals

CO4: Students will be able to find the volume of the given region using integrals

CO5: Students will be able to apply Green's theorem and Stoke's theorem to evaluate integrals

DEPT: Mathematics

Year: II B.Sc., Computer Science

Semester: III

SUBJECT NAME: Non Major- Mathematics for Competitive Examinations

SUBJECT CODE: JNMA3A

Learning outcomes/Acquisitions

CO1 Students will be able to simplify simple expressions and they can
apply the knowledge of average to solve real world Problems.

CO2 Students will acquire skill of solving day today life situation problems
involving Ratio and Proportion.

CO3 Students will get an in-depth knowledge in partnership and
percentage.

CO4 Students will come to know how to calculate profit and loss and how
business operate in perfectly competitive markets.

CO5 Students will be able to solve mathematical problems on numbers.

DEPT: Commerce

Year: II B.Com.,

Semester: III

SUBJECT NAME: Business Statistics

SUBJECT CODE: JMCO32

Learning outcomes/Acquisitions

CO 1: Students gets introduction about statistics and its importance. It extends to collection of data, Sampling designs and its methods. They also study about classification of data and tabulation and graphical presentation of data.

CO 2: Students gets knowledge about Measure of central tendency, Mean, Median and Mode. They also study about Geometric mean and harmonic mean.

CO 3: Students acquires knowledge about measure of dispersion . they study about range and deviations. They gets introduction about skewness and its types.

CO 4: Students study about correlation and their types. They also study about Regression and Regression analysis. They also study about its applications. They study about Least square method.They studies the deviations taken from actual mean and assumed mean method.

CO 5: Students studies about Index numbers and its types and related problems. They also studies about Methods of constructing index numbers and Index number tests. They gets knowledge about Analysis of time series and its importance. They studies about Graphic Method and moving average method and method of least square.

DEPT: Mathematics

Year: II B.Sc., Semester: IV

SUBJECT NAME: Abstract Algebra

SUBJECT CODE:

Learning outcomes/Acquisitions

CO1 Students will be able to know Groups and Examples, Subgroups, Order of an elements.

CO2 Students will know to understand cyclic groups, cosets, partition of a group by cosets.

CO3 Students will know normal subgroups, quotient groups, homomorphism, isomorphisms.

CO4 Students will be able to understand Rings and examples, types of rings, ideals.

CO5 Students will know polynomial rings,unit factorization domain.

DEPT: Mathematics

Year: II B.Sc., Semester: IV

SUBJECT NAME: Allied II – Statistics II

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO 1: To understand Commodity Reversal test, Time reversal test and Circular test.
- CO 2: To know about difference of proportions and difference of means.
- CO 3: Acquires knowledge about Tests based on Chi-Square distribution and goodness of fit.
- CO 4: To know about Randomized block design, Latin square.
- CO 5: Acquires knowledge about various Chart like Control chart , Mean chart, P-chart, Range Chart and Product control.

DEPT: Mathematics

Year: II B.Sc.,

Semester: IV

SUBJECT NAME: Skill Based - Trigonometry, Laplace Transforms and Fourier Series

SUBJECT CODE:

Learning outcomes/Acquisitions

CO1 Students will be able to discuss various applications of DeMoivre's theorem such as expansions of $\sin nx$, $\cos nx$, $\tan nx$ and expansions of $\sin^n x$ and $\cos^n x$.

CO2 Students will come to know Hyperbolic functions, inverse hyperbolic functions and the relations between them. They can find the sum of different types of trigonometrical series finite or infinite using C+iS method.

CO3 Students will understand the Laplace Transform and its existence. They will be able to find the Laplace transform and Inverse Laplace Transform of a function.

CO4 They will be able to use the method of Laplace transforms to solve initial-value problems for linear differential equations with constant coefficients and simultaneous equations.

CO5 Students will acquire an in-depth knowledge in basic concepts relating to Fourier series and to obtain Fourier series development of several functions.

DEPT: Mathematics

Year: II B.Sc.Computer Science Semester: IV

SUBJECT NAME: Non Major – Mathematics for Competitive ExaminationsII

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO 1: Students will be able to know that the different types of Interest namely Simple Interest and Compound Interest.
- CO 2: Students will know that Time and Work which are useful in the competitive examinations.
- CO 3: Students will be able to understand that Time and Distance. This is also used in the Competitive Examinations. This is very useful to the Students.
- CO 4: Students will study about chain rule which contains cost price, selling price, loss and profit and proportion and ratio. Students admire these concepts very much.
- CO 5: Students will know that the time will be taken to fill the tank through pipe. It is very useful to the students in the competitive examinations.

DEPT: Commerce

Year: II B.Com. Semester: IV

SUBJECT NAME: Business Mathematics

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO1 Students will get an in-depth knowledge in Number System and linear, quadratic equations. They will come to know the formation of quadratic equations and how to solve these equations.
- CO2 Students will understand some basic definitions and laws of Indices. They will acquire knowledge in common logarithms and their applications.

- CO3 Students will get skill in Analytical geometry and their applications.
- CO4 Students will come to know the definition of matrix and their types.
They will be able to find adjoint and inverse of a matrix.
- CO5 Students will understand the business arithmetic problems. They will be able to find the solutions of day today life.

DEPT: Mathematics

Year: III B.Sc., Semester: V

SUBJECT NAME: Linear Algebra

SUBJECT CODE: GMMA51

Learning outcomes/Acquisitions

- CO 1: Students gets introduction about Vector spaces and Subspaces.
- CO 2: Studied about Linear independence and Basis.
- CO 3: Acquired knowledge about Rank and Nullity
- CO 4: Studied about characteristic equation of a matrix and Cayley-Hamilton theorem.
- CO 5: Gets introduction about Inner Product Spaces and Gram Schmidt orthogonalisation Process.

DEPT: Mathematics

Year: III B.Sc., Semester: V

SUBJECT NAME: Real Analysis

SUBJECT CODE: GMMA52

Learning outcomes/Acquisitions

- CO1 Students will be able to find the given sets are countable (or) not and they can give many examples for metric spaces.
- CO2 Students will know to define the interior of a given set, and closure, limit points of a given set. They know how to use the above sets to derive some theorems.
- CO3 Students will be able to find the given function is continuous (or) not. They can understand the different types of continuity.

CO4 Students will be able to give the examples using open sets and closed sets for connectedness. They can study about some equivalent conditions for connectedness.

CO5 Students will know the different types of compact and give some examples for compactness. Some equivalent condition for compactness and studied the students.

Dept: Mathematics

Year:III B.Sc Semester: V

Subject Name: Combinatorial Mathematics Subject Code: GMMA53

Learning outcomes/Acquisitions

CO1 Students will learn about the binomial coefficients. They will know permutation. They will be able to understand ordered selection and unordered selection.

CO2 They will learn about pairing problems. They will learn to solve pairing within sets and pairing between sets. They will be able to solve optimal Assignment Problems.

CO3 They will learn about Recurrence. They will learn Fibonacci type relation using generating function.

CO4 They will learn about the Inclusion and exclusion principle and root polynomials.

CO5 They will learn about block designs and square block designs.

DEPT: Mathematics

Year: III B.Sc., Semester: V

SUBJECT NAME: Programming in C

SUBJECT CODE: GMMA5D

Learning outcomes/Acquisitions

CO 1: Students are able to understand constants and operations in C language.

CO 2: To know about decision making, branching and looping.

CO 3 Acquired knowledge about arrays and character strings.

CO 4: Learns about User Defined functions

CO 5: Studied about pointers and file management in C language.

DEPT: Mathematics

Year: III B.Sc.,

Semester: V

SUBJECT NAME: Skill Based Elective – Personality Development

SUBJECT CODE: GCSB5A

Learning outcomes/Acquisitions

- CO1 Students will come to know the meaning, definition, determinants, Major traits of personality. They will also know the theories of personality.
- CO2 Students will get an in-depth knowledge in Personality concepts. They will also know the meaning and process of perceptions. They will get an idea about factors influencing perception, errors in perception, attitudes and factors influencing attitudes.
- CO3 Students will come to know the definition of leadership, leadership styles, theories and qualities of leadership.
- CO4 Students will acquire an in-depth knowledge in skills. They will also know communication, importance and process of communication, methods of communication, barriers in communication and techniques of effective communication.
- CO5 Students will be able to face an interview. They will also know to plan an interview.

DEPT: Mathematics

Year: IIIB.Sc.,

Semester: VI

SUBJECT NAME: Linear Programming

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO1: Students will be able to convert real life problems into mathematical model
- CO2: Students will be able to find an optimal solution to the mathematical models
- CO3: Students will create awareness about various mathematical techniques in transportation problems and strategies.
- CO4: Students will determine the assignment of jobs to machines such that only one job is assigned to one machine and overall cost is minimum

CO5: Students will know the selection of an appropriate order for a finite number of jobs to be done on a finite number of machines/ service facilities in some prescribed order so as to minimize the total idle time for the machine.

DEPT: Mathematics

Year: III B.Sc.,

Semester: VI

SUBJECT NAME: Complex Analysis

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO1 Students will learn about the complex numbers. They will know to find n^{th} root of a complex number. They will learn about circles, straight lines and regions in the complex plane. They will know about extended complex plane.
- CO2 They will learn functions of complex variables. They will learn limits and differentiability. They will learn to apply C-R equations to check whether the function is differentiable or not. They will know analytic functions and harmonic functions.
- CO3 They will learn elementary transformations. They will know about cross ratio. They will know to find the fixed points of bilinear transformations. They will learn some special bilinear transformations.
- CO4 They will study complex integration. They will learn definite integral. They will learn to apply Cauchy's Theorem and Cauchy's Integral formula to integrate the functions. They will know Higher Derivatives and Taylor's Series.
- CO5 They will learn Laurent Series. They will be able to find Singular points and Residues. They will learn to evaluate Definite Integrals.

DEPT: Mathematics

Year: IIIB.Sc.,

Semester: VI

SUBJECT NAME: Mechanics

SUBJECT CODE:

Learning outcomes/Acquisitions

- CO 1: Students come to know about Forces and Moments
- CO 2: Students experimented about Equilibrium of three Forces and Frictions.
- CO 3: Students are able to know about Projectiles.
- CO 4: Students are curious to learn Simple Harmonic motion through Pendulum

CO 5: Students should know how to solve two fold problems in Central Orbit and Law of Inverse Squares.

DEPT: Mathematics **Year: III B.Sc.,** **Semester: VI**

SUBJECT NAME: Graph Theory **SUBJECT CODE:**

Learning outcomes/Acquisitions

CO1 Students will be able to know how to give the examples for graphs from the definition graphs.

CO2 Students will know to understand the degree sequences, and walks, Trails and paths, connectedness.

CO3 Students will know to draw Euler graphs, Hamiltonian graphs and they can understand the given the graphs are Eulerian (or) not.

CO4 Students will be able to give the examples of planar graphs and they can find the chromatic number for the given graphs.

CO5 Students will know to define the digraphs and connectedness in digraphs.

DEPT: Mathematics **Year: III B.Sc.,** **Semester: VI**

SUBJECT NAME: Number Theory **SUBJECT CODE:**

Learning outcomes/Acquisitions

CO 1: Students are able to know about Mathematical Induction and Binomial theorem.

CO 2: Studies about Division algorithm and the Euclidean Algorithm.

CO 3: Understands the Fundamental theorem of arithmetic and the Sieve of Eratosthenes.

CO 4: Studies basic properties of congruence and linear congruence, The Chinese Remainder Theorem.

CO 5: Gets knowledge about Fermet's theorem and Wilson's theorem.

Department: Mathematics **Year: I M.Sc.,** **Semester: I**

Subject Name: ALGEBRA - I **Subject Code:** PMAM11

- CO1 Students will be able to know to define the Normal subgroups and Quotient groups and Homomorphisms.
- CO2 Students will know the properties of automorphisms and how to give the examples for automorphisms and solvable groups.
- CO3 Students will understand the permutations groups easily and they can solve the problem which are given in the permutation groups.
- CO4 Students will be able to know the different types of Sylow's theorem and they can do many problems using Sylow's theorem.
- CO5 Students will know to understand the Direct products and Finite abelian groups.

Department: Mathematics **Year:** I M.Sc., **Semester:** I

Subject Name: ANALYSIS - I **Subject Code:** PMAM12

- CO1 Students will be able to know metric spaces and perfect sets.
- CO2 Students will know to understand numerical sequences and series, the number e .
- CO3 Students will know root test, ratio test, Mertens theorem.
- CO4 Students will be able to understand continuity.
- CO5 Students will know differentiability.

Department: Mathematics **Year:** I M.Sc., **Semester:** I

Subject Name: ANALYTIC NUMBER THEORY **Subject Code:** PMAM13

- CO1 Students will learn about divisibility. They will be able to find the greatest common divisor. They will learn prime numbers. They will be able to find the numbers which are relatively prime to the given number. They will learn the fundamental theorem of

arithmetic, the series of reciprocals of the primes and the Euclidean Algorithm. They will be able to find the greatest common divisor of more than two numbers.

- CO2 They will learn Mobius function. They will know the Euler Totient function. They will study about the relation connecting ϕ and μ . They will learn the product formula, The dirichlet product of arithmetical functions. They will study the Dirichlet inverses and the mobius inversion formula.
- CO3 They will learn Multiplicative functions. They will know Dirichlet multiplication. They will study the inverse of completely multiplicative function. They will learn Liouville's function and the Divisor functions
- CO4 They will learn Big oh notation. They will study about Asymptotic equality of functions. They will know Euler summation formula. They will learn the average order of divisor function and application of distribution of lattice points visible from the origin.
- CO5 They will learn Chebyshev's functions.. They will study relating connecting $\phi(x)$ and $\theta(x)$. They will learn about some equivalent forms of the prime number theorem. They will know the inequalities for $\pi(n)$ and p_n .

Department: Mathematics **Year:** I M.Sc.,

Semester: I

Subject Name: Ordinary Differential Equations

Subject Code: PMAM14

- CO1 Students will come to know the second order linear equations. They will come to know how to find general solution of second order linear equation using various methods.
- CO2 Students will get an in-depth knowledge in Power Series solution.
- CO3 Students will come to know how to find the solution of the second order linear equation using Fourier series.
- CO4 Students will acquire an in-depth knowledge in Legendre Polynomials, Bessel functions and the Gamma functions.
- CO5 Students will be able to solve the homogeneous linear system with constant coefficients.

Department: Mathematics **Year:** I M.Sc., **Semester:** I

Subject Name: Numerical Analysis **Subject Code:** PMAM15

- CO 1 Students are able to know Newton's Interpolation Formula and Lagrange's Interpolation Formula. Also, Hermit's polynomial for better approximation
- CO 2 Student's curiosity towards Numerical Differentiation develops in this unit. They came to know about Forward, Backward and Central Difference Formula.
- CO 3 It evolves from Numerical Integration to Numerical evaluation of double integrals.
- CO 4 Student's can find numerical solutions of Ordinary differential equations using Taylor's series, Picard's Method and Euler's Method.
- CO 5 Students are able to find better approximation by Predictor Corrector method, Milnes method and Adams-Bachforth method.

Department: Mathematics **Year:** I M.Sc., **Semester:** II

Subject Name: ALGEBRA-II **Subject Code:**

- CO1 Students will know the different types of rings and ideals.
- CO2 Students will know the different types of Euclidean rings and they know how to give the examples for the Euclidean rings.
- CO3 Students will be able to know to define the polynomial rings interms of rings.
- CO4 Students will know how to define the different types of radicals of rings interms of rings.
- CO5 Students will be able to know the different types of rings such as Quasi regular – \mathfrak{Q} – semi-simple and direct sum of rings.

Department: Mathematics **Year:** I M.Sc., **Semester:** II

Subject Name: ANALYSIS - II

Subject Code:

- CO1 Students will be able to know Riemann integrable functions, fundamental theorem of calculus.
- CO2 Students will know to understand the Rectifiable curves, convergence (pointwise, uniform convergence) of sequence and series of functions.
- CO3 Students will know uniform convergence and integration, uniform Equicontinuous functions.
- CO4 Students will be able to understand some special functions, power series.
- CO5 Students will know algebraic completeness of the complex field, Beta, Gamma functions.

Department: Mathematics **Year:** I M.Sc.,

Semester: II

Subject Name: Classical Mechanics

Subject Code:

- CO 1 To understand the concept of mechanics of particles and constraints.
- CO 2 To learn about D'Alembert's principle and Lagrange's Equations.
- CO 3 Acquires knowledge about Hamilton's Principle and its extension.
- CO 4 Knows about first integrals and one dimensional problems.
- CO5 Students are able to know about the differential equation for orbit and the Kepler problems.

Department: Mathematics

Year: I M.Sc.,

Semester: II

Subject Name: Differential geometry

Subject Code:

- CO1 Students will acquire in depth knowledge in theory of space curve and surfaces based on Serret-Frenet Formulae.
- CO2 Students will gather clear idea about contact between curves and surfaces, tangent surfaces, involutes and evolutes, Helices.

equation and integral curves.

- CO 3 To understand about Cauchy's method and Charpit's Method.
- CO 4 To learn about second order equation in Physics and such equations with constant coefficients.
- CO 5 To study the characteristics of equations in three variables and separation of variables.

Department: Mathematics

Year: II M.Sc

Semester: III

Subject Name: Measure and Integration.

Subject Code: KMAM31

- CO1 Students will understand the concept of Lebesgue measure, outer and inner approximation and Borel Cantelli lemma.
- CO2 Students will acquire knowledge about Lebesguemeasurable functions, littlewood's three principle, egoroff's theorem and Lusin's theorem.
- CO3 Students will understand the concept of lebesgue integration and Riemann integral. Differentiability of Monotone Functions: Lebesgue's Theorem, Functions of Bounded Variation: Jordan's Theorem.
- CO4 Students know the concept of General Measure Spaces, their Properties and Construction. Signed Measures: The Hahn and Jordan Decompositions.
- CO5 Students will acquire knowledge about Integration over General Measure Spaces. Integration of non – negative Measurable functions and general Measurable function

Department: Mathematics **Year:** II M.Sc.,

Semester: III

Subject Name:Topology

Subject Code:KMAM32

- CO 1 Students are able to know about Topological Spaces and subspace topology
- CO 2 Studied about the Product Topology and Closed sets.
- CO 3 Acquired knowledge about continuous functions.
- CO 4 Gets knowledge about connected spaces and compact spaces.
- CO 5 It extends to limit point compactness and local compactness.

Department: Mathematics **Year:** II M.Sc., **Semester:** III

Subject Name: Operations Research **Subject Code:** KMAE32

- CO1 Students will be able to apply the concept of network to study the transportation and assignment models
- CO2 Students will understand the multitude of operations research situations that can be conveniently modeled and solved as networks
- CO3: Students will be able to start with simple integer linear programming applications and then graduate to more complex ones
- CO4: Students will be able to understand the method to maintain a reasonable inventory of goods to ensure smooth operations
- CO5: Students will determine the measures of performance of a queueing situation including other parameters

Department: Mathematics **Year:** II M.Sc., **Semester:** III

Subject Name: Research Methodology **Subject Code:** KMAM33

- CO 1 To know about research project and its methodology

- CO 2 To understand Gamma and Chi-square distributions
- CO 3 To learn about t and f distributions.
- CO 4 Acquires knowledge about X and ns^2/σ^2 distributions.
- CO 5 To understand limiting distribution and Central limit theorem.

Department: Mathematics **Year:** II M.Sc., **Semester:** IV

Subject Name: Functional Analysis **Subject Code:**

- CO1 Students will learn about Banach Spaces. They will be able to do examples of Banach spaces. They will know continuous linear transformations. They will learn Hahn Banach Theorem and natural imbedding of N into N^*
- CO2 They will learn Open mapping theorem. They will know conjugate operator. They will study about Hilbert Spaces. They will learn simple properties and orthogonal complements.
- CO3 They will learn about orthonormal sets. They will know conjugate space. They will know to find the adjoint operator. They will learn self adjoint operator.
- CO4 They will learn normal and unitary operators. They will study about finite dimensional spectral theory. They will know to find the determinants and spectrum of an operator. They will learn the spectral theorem.
- CO5 They will learn general preliminaries on Banach algebras. They will study regular and singular elements. They will learn about topological divisors of zero. They will know the formula for spectral radius. They will learn radical and semi simplicity.

Department: Mathematics **Year:** II M.Sc., **Semester:** IV

Subject Name: Complex Analysis **Subject Code:**

- CO 1 Students get introduction about analytic function and study Abel's Limit theorem.
- CO 2 To understand conformal mappings and linear transformations.

- CO 3 To learn about Cauchy's theorem for rectangle and Cauchy's theorem in disc, Cauchy's integral formula .
- CO 4 Acquires knowledge about higher derivatives and uses it in Taylor's theorem and local mapping.
- CO 5 To understand Calculus of Residue's and the Residue's theorem.

Department: Mathematics **Year:** II M.Sc., **Semester:** IV
Subject Name: Differential geometry **Subject Code:**

- CO1 Students will acquire in depth knowledge in theory of space curve and surfaces based on Serret-Frenet Formula.
- CO2 Students will gather clear idea about contact between curves and surfaces, tangent surfaces, involutes and evolutes, Helices.
- CO3 Students will come to know the curves on a surface, surfaces of revolution, Helicoids Metric on a surface through the first fundamental form and direction coefficients on a surfaces.
- CO4 Students will understand families of curves and Geodesic on a surface.
- CO5 Students will come to know the second fundamental form and some local non-intrinsic properties of a surface.

DEPARTMENT OF MATHEMATICS

M.Sc., PROJECT

1. PG students acquired in depth knowledge in the relative subjects, which helps & motivates them when they undergone Research work.

Department: Zoology

Year: I Semester: I

Subject Name: ANIMAL DIVERSITY -I

Subject Code: JMZO11

1. Realize the importance of science of classification and explains primitive invertebrate Organisms with typical examples and explanations unique features are also discussed.
2. Classification of next strata are is done with typical examples
3. Stakeholders are made be curve of parasitic worms and features of annelids are informed with a type study
4. Students become through with insect classes (Beneficial, harmful)
5. Knowledge up gained by stakeholders about the invertebrate animals al higher level , their uniqueness and their economic importance

Department: Zoology

Year: I Semester: I

Subject Name: ANIMAL DIVERSITY -II

Subject Code: JMZO12

1. Stakeholders become aware of taxonomic position of prochor date sand their biological Importance.
2. Learn about importance of fishes in evolutionary order and special features are discussed in general.
3. Amphibian and their biological significance
4. Gets knowledge about birds, their biological significance and their special features
5. Gain knowledge about mammals and learn about special examples.

I Year (II SEMESTER)

Developmental Zoology (JMZO21)

- 1) To understand the sequential changes from cell to organ grade of organization in the development of multi cellular organisms.
- 2) The development of chick is clearly explained.
- 3) The process of reproduction in human is discussed.
- 4) It explains the process of amphibian metamorphosis, extra embryonic membranes and placenta of mammals.
- 5) It incubate the techniques involved in Human birth control and test tube baby.

Ecology and Toxiology - (JMZO22)

- 1) Students become well aware of the interaction and interdependence among environmental factors and living organisms.
- 2) It explains the characters and features of ecological population and community.
- 3) It explains the importance of wild life conservation,
- 4) Uses of remote sensing technique in ecology and urbanization.
- 5) Students gain knowledge about the ill effects and health hazards of toxic agents released to the environment.

II year (III SEMESTER)

Cell and Molecular Biology (GMZ031)

- 1) To understand the techniques involved in cytology and Microscopy.
- 2) To elucidate the ultra structure of cell and its functions.
- 3) Explains the structure and functions of chromosome.
- 4) Detailing the principles involved in oncology and its impact on humans.
- 5) Stating the facts and physiology involved in cell division.

Home Aquarium (GSZ03A)

- 1) It explains the importance and construction techniques of Home Aquarium.
- 2) It discusses about ornamental fishes and plants used in aquarium tanks.
- 3) To know the different species of ornamental fishes.
- 4) It states the facts about reproductive biology and the diseases of ornamental fishes.
- 5) It enumerates the taxonomy and morphology of other ornamental organisms and some aquatic plants.

IV SEMESTER

GENETICS GMZO41

By completing their studies in Genetics, students are expected to have achieved the following skills and capabilities:

1. Comprehensive detailed understanding of the chemical basis of heredity.
2. To know about genetic methodology which provides insight into cellular and molecular mechanisms.
3. Understanding of new genetics concepts after broad societal issues including health and diseases in human population.
4. The ability to recognize the experimental rationale of genetics studies.
5. Understanding the role of genetic mechanism in evolution.

VERMITECHNOLOGY GSZO4B

The skill based subject aims to impart:

1. The detailed classification, Morphology, Anatomy and Physiology of earthworm.
2. Understanding the cultural techniques of different species of earthworms.
3. The knowledge about vermicomposting.
4. The importance of earthworm in solid waste management and its economy.
5. The cooperation and supporting role of Government and Non-Governmental organizations towards vermitechology.

V SEMESTER

SERICULTURE(GMZO 5A)

This paper aims to create an awareness among students sericulture by imparting

1. Knowledge about Horticulture.
2. The importance of cultural techniques of mulberry.
3. The details about different species of silkworm and its life cycle.
4. The importance points about the production of silk
5. To explore the scope for students adopting sericulture as a vocation as it rural based and welfare oriented agro based industry.

APICULTURE (GMZO 5D)

This study aims to importance

- 1.The importance, Biology and management of bees.
2. To demonstrate bee keeping management skills.
3. To apply the knowledge on bee biology and management to the development of the bee industry.
4. To evaluate bee keeping project for cost effectiveness and sustainability.
5. To kindly the interest of students to take up the beekeeping of their profession.

ANIMAL PHYSIOLOGY & BIOCHEMISTRY GMZO51

1. To organize the students knowledge of chemistry around the physiological functions of whole animal systems with a special reference human being.

2. To know the anatomy and interactions between different organ systems.
3. To understand the classification, structure and functions of the basic nutrients.
4. To have an eye on the mechanism of enzymes on metabolism.
5. Understanding of endocrinology with special reference to man.

ANIMAL BIOTECHNOLOGY GMZO52

Upon successful completion of this subject, students should:

1. Be able to describe the structure of animal genes, cloning vectors and genomes.
2. Be able to describe how genes are expressed and what regulatory mechanisms contribute to control of gene expression.
3. Be know about the basic principle and techniques in genetics manipulation and genetic engineering.
4. Be well aware of techniques and problems both technical and ethical in animal cloning.
5. Be able to explain the functional genomics in animal biotechnology now and in the future.

VI SEMESTER

APPLIED BIO -TECHNOLOGY (GMZO 61)

This study creates an awareness among the students about the application of biotechnological principles in;

1. The field of environment.
2. The field of Agriculture and Aquaculture.
3. The field of Bio process industries.
4. The field of Enzyme Technology
5. The field of Pharmaceutical and Health industries.

IMMUNOLOGY & MICROBIOLOGY (GMZO 62)

The outcome of this study explicit

- | | |
|----|--|
| 1. | The types and organs of immunity. |
| 2. | The structure, function and biological properties of Immunoglobulin. |
| 3. | The antigen antibody reaction and types & immune responses. |
| 4. | The facts about classical microbiology. |

5. The application of microbiology in different fields of food industry, Agriculture, Medical and Pharmaceutical industry.

BIostatistics, Computer Applications and Bioinformatics

The stake holders gain knowledge about

1. Basic statistical methods and diagrammatic representations of data.
2. Statistical calculations of observations and their applications.
3. Computer & basic information about computers MS word, MS office & Excel.
4. Bioinformatics and its scope, compounds and applications.
5. Major data bases & tools for bioinformatics required for bioinformatics.

AQUACULTURE

The stake holder gain knowledge about

1. Aquacultural potential culture techniques and culturable species.
2. Preparation of ponds for fish culture; shell fish & oyster culture
3. Broad & specific types of cultures.
4. Types of fish feed and their formulations.
5. Crafts & gears, marketing, preservation techniques & government participation.

PRACTICAL- I

ANIMAL DIVERSITY I- INVERTIBRATA

1. To dissect and mount cockroach Nervous system and digestive system.

CHORDATA

2. To dissect and mount the shark placoid scales.
3. To observe the frog arterial system & brain both dorsal and ventral view.

DEVELOPMENTAL ZOOLOGY

1. To mount and observe the live sperm of vertebrate & egg of frog.
2. To undergone temporary mounting and the chick embryo stages 24 hrs, 48 hrs, 72 hrs, 96 hrs.

ECOLOGY, TOXICOLOGY

1. To estimate the alkalinity in two water samples.
2. To observe some marine and fresh water planktons.

II Year

CELL BIOLOGY

1. To observe the giant chromosomes in chromomous larva.
2. To prepare human and frog blood

GENETICS

1. TO Observe the simple mendelian fruit in man
2. Observation and study of polygenic inheritance of quantitative traits to be interpreted in graphs.
3. To analyse the blood group in a population with 30 students.
4. To study the model of genetic significance.

ANIMAL PHYSIOLOGY & BIO CHEMISTRY

1. To measure the rate of O₂ consumption in a fish.
2. Calculate the Q₁₀ with the effect of temperature on the opercular movement of fish.
3. To demonstrate the blood pressure using sphygmometer.

ANIMAL BIOTECH

1. To estimate the protein quantitatively by Lowry method.
2. To demonstrate the isolation of genomic DNA.

SERICULTURE

1. To dissect the silk gland.
2. To know & observe the life cycle of silk worm.

APICULTURE

1. To identify the worker, queen and drone bees.
2. To mount legs, mouth parts and sting of honey bees.

VI SEMESTER

APPILIED BIOTECH

1. Preparation of culture media for microbes.
2. To know about how the distribution of micro organisms in nature soil, water and air.
3. To the preparation and fixing of bacteria for staining.

BIO STATISTICS

1. To find out mean, median, mode standard deviation standard error and co-efficient of variance using Neem leaf.
2. To know the computer basics.
3. To know the new techniques of bioinformatics.

AQUACULTURE

1. To determine the pH of 2 water samples using pH meter.
2. To estimate the do level, alkalinity in 2 water samples.
3. Mounting the scales in shark.

DEPT: PLANT BIOLOGY & PLANT BIOTECHNOLOGY
Semester:I

YEAR:II

SUBJECT NAME:Plant Diversity&Medicinal Botany
CODE: JAPB11

SUBJECT

(Learning Outcome/Acquisition)

- CO1 Understanding the Characters and importance of Algae and Fungi.
- CO2 Provides the basic features and importance of Lichen and Bryobhytes.
- CO3 Gives the Basic knowledge about Pteridophytes and Gymnosperms.
- CO4 Familiar with Angiosperm Classification and typical families.
- CO5 Acquire knowledge about some Medicinal Plants Morphology,Parts used and Medicinal uses of Selective plants.

DEPT: PLANT BIOLOGY & PLANT BIOTECHNOLOGY YEAR :II Semester:II

SUBJECT NAME: Anatomy,Embryology,Physiology&Biotechnology SUBJECT CODE:
JAPB21

(Learning Outcome/Acquisition)

- CO1 Provides the knowledge on the structure and development of Pollen, Ovule and Embryo.
- CO2 Acquire the knowledge about the Fundamental Tissues, Secondary tissues and the Internal structure of a Plant.
- CO3 Gives the Physical, Chemical process going on in plants and their coordination to perform various basic functions.
- CO4 Provides the basic ideas about the culture of plant cells or plant tissues and the Preparation of Synthetic media.
- CO5 Understanding the Importance of Biotechnology and their application in the field of Agriculture, Healthcare, Food processing and Industries

DEPT: PLANT BIOLOGY & PLANT BIOTECHNOLOGY **YEAR :II**
Semester:II

SUBJECT NAME: Anatomy, Embryology, Physiology & Biotechnology **SUBJECT**
CODE: JAPBP1

(Learning Outcome/Acquisition)

- CO1 Acquire the knowledge on Identification of common Plants and their Families.
- CO2 To describe the Angiospermic plants in technical terms.
- CO3 Demonstrate the Embryo dissection.
- CO4 To increase the knowledge in Micropreparation skills.
- CO5 How to identify the Medicinal Plants.
- CO6 Acquire the knowledge on Identification of Specimens prescribed in the syllabus.

DEPT: PLANT BIOLOGY & PLANT BIOTECHNOLOGY (NON-MAJOR) **YEAR**
:II Semester:I

SUBJECT NAME: Gardening & Garden Management **SUBJECT CODE:**
GNPB3A

(Learning Outcome/Acquisition)

- CO1 Familiar with the Gardening principles and types.
- Co2 Understanding the fundamentals of Garden and its Parts.
- CO3 Gives the Basic ideas about Vegetables gardening, types, Kitchen garden and its parts.
- CO4 Understanding the Principles and maintenance of Indoor gardening.
- CO5 Acquire knowledge about Garden implements.

DEPT: PLANT BIOLOGY & PLANT BIOTECHNOLOGY(NON-MAJOR) YEAR: II
Semester: 2

SUBJECT NAME: Bioresources
GNPB4B

SUBJECT CODE:

(Learning Outcome/Acquisition)

- CO1 To understand the Scope and Importance of Biofertilizers with Examples.
- CO2 To know about the Natural resources Utility and their Values.
- CO3 Understanding the importance of Energy Plantation and Biofuel production from higher plants and lower algae.
- CO4 Acquire the knowledge about the Biopesticides production, Mechanism of action, applications and types.
- CO5 To understand the values of some important medicinal plants and their medicinal uses.

DEPARTMENT OF COMPUTER SCIENCE

SEMESTER: I

Department: Computer Science

year: I Semester: I

Subject name: Problem Solving Technique PROGRAMMING IN C Subject Code: SMCS11

CO1: C supports a rich set of operators. Operators used in program to manipulate data and variables. They usually form a part of the mathematical or logical expression.

CO2: We have discussed the control structures for decision making and branching, decision making and looping concepts.

CO3: Array concepts are used for calculating standard deviation, matrix manipulation, evaluating a text. Array is also used for string manipulation.

CO4: The main advantage of function is to reduce the size of the program. Structures help to organize complex data in a more meaningful way.

CO5: Pointers increase the execution speed. C supports a number of functions that have the ability to perform the basic file operations.

OUTCOME: Learning strong concepts for programming languages.

Department: Computer Science

year: I semester: I

Subject name: Discrete Mathematics

Subject Code: JACS 11

CO 1; Knowledge, understanding of classifications of Relations and its types.

CO 2: Understanding and applications of Functions

CO 3: Fundamentals of Mathematical logic with propositions and truth tables are studied

CO 4: Knowledge of Matrix algebra with different type of matrices

CO 5: Introductory Graph Theory for understanding and applications.

OUTCOME: profound Knowledge, understanding and applications of fundamentals of Discrete Mathematics.

Department : Computer Science year: I Semester: I

Subject name : PROGRAMMING IN C (Practical) Subject Code : SMCSP1

CO1: Finding all possible roots of quadratic equations, Checking vowels or consonant, Finding Sine series value.

CO2: Sorting list of numbers in ascending order, Searching an element in an array, Reversing a number.

CO3: Checking the given string is palindrome or not, Finding the binomial coefficient value, Multiplying two matrices, Finding a transpose of a matrix.

CO4: Finding the sum of n numbers using function call, Sorting names in alphabetical order, Exchanging values using pointers.

CO5: Preparing the student details using structure, Preparing mark sheet using file.

OUTCOME: Acquiring knowledge for writing application programs.

I year semester I

Allied Practical I - Computer Basics

SACSP1

- To design word document with some of the features
 - To create spreadsheet worksheet for student, employee with some calculations and usage of mathematical, statistical and logical functions
 - To design database using validation rule, query, form and report
- Outcome: To develop office automation skill

Department of Computer Science I year

Semester II

Object oriented Programming in C++

GMCS21

Co1: Introduction of principles of Object oriented Programming

Co2: To discuss the concept of constructors and destructors

Co3: Understanding the features of operator overloading, type conversion and inheritance

Co4: Understanding the features of pointers, virtual functions and polymorphism

Co5: Working with files and templates

Outcome: To gain the basic knowledge of object oriented programming and understand the various terminologies in object oriented programming using

Department: Computer Science year: I semester:II

Subject name: DIGITAL DESIGN –Allied Subject Code:SACS11

CO 1: Understanding of digital logic fundamentals gates and study of Boolean algebra and K-Maps.

CO 2: Knowledge of number systems and conversions with data processing circuits

CO 3: Study of binary arithmetic circuits with clock and timing circuits for hardware Implementation

CO 4: Flip-flops and Registers for understanding, knowledge and implementation

CO 5: Knowledge, understand and implements counters and A/D and D/A conversions

OUTCOME: To knowledge, understand and implement the fundamental hardware

I year semester II

Major Practical II – Object oriented Programming with C++ GMCSP2

- To gain the basic knowledge of object oriented programming concepts
- To understand the detail idea of object oriented programming features like constructors, overloading, inheritance, polymorphism, pointers, virtual functions by implementing sample programs

Outcome: To develop object oriented programming skill

Department: Computer Science year: I semester: II

Subject name: Computer Basics practical LINUX –Allied Subject Code:

To aware, knowledge, understand and implement the Linux fundamental commands, Execution of C programs and Shell programs.

SEMESTER: III

SUBJECT : WEB TECHNOLOGY CODE : JMCS31 YEAR : II SEMESTER: III

CO 1 Introducing and usage of internet and protocols

CO 2 Teach about Hyper Text Markup Language

CO 3 How JavaScript use in the internet

CO 4 How Common Gate Way help in the internet transactions

CO 5 How to Develop Java Server Pages

Out come To aware, knowledge, understand and implement the Web Technology and their application employment opportunity

**SUBJECT : JAVA PROGRAMMING CODE : JMCS32 YEAR : II
SEMESTER: III**

CO 1 Introducing Data type, variables and arrays

CO 2 concept of Class, Methods

CO 3 Packages and interfaces for profound knowledge

CO 4 Applet concept and event handling

CO 5 Understanding AWT class

Out come To understand and implement of Java Programming

Department: Computer Science

Year: II Semester: III

Subject: Computer Architecture

Subject Code: JACS31

CO 1: Understanding basic computer organization and design

CO 2: Learning the CPU organization of different parts

CO 3: Implementation of Computer Arithmetic operations

CO 4: Knowledge, Understanding and implementation of I/O and Memory Organization

CO 5: Advanced processing architecture Knowledge is provided

OUTCOME: Study and implementation of Computer Architecture

II year semester III

Non-Major Elective Introduction to Computers

Co1: Understanding the characteristics, generation and architecture of computers

Co2: Introducing various types of input, output, storage devices

Co3: Introducing various user interfaces and getting started with windows operating system

Co4: Provide basic knowledge of word processing using MS word

Co5: Introducing the computer communication and types of networking

Outcome: To provide the basic knowledge of computers to all the students other than computer science / Information Technology major students

II year semester III

Major Practical II – Java Practical JMCSP3

- knowledge about java programming concepts
- To understand and implementing programs

Outcome: To develop java programming

II year semester III

Allied Practical – Script Languages Practical HTML JACSP2

- To Design web page
- To design web site

Outcome: To Implementation of Web Site

Department: Computer Science

SUBJECT : PYTHON CODE : GACS3 YEAR : II SEMESTER: III

CO 1 To understand the Menu Driven Program works

CO 2 Implement the curve of sine and cosine

CO 3 How to create series in Python

CO 4 How to write program for matrix

CO 5 How to create CSV Files

Out come To aware, knowledge, understand and implement the Pythone programming

SEMESTER: IV

Department: Computer Science

SUBJECT : DATA STRUCTURE CODE : new YEAR : II SEMESTER:IV

CO 1 Implement the concept of Stack and Queues

CO 2 How Binary Search Trees Works in c++ programming

CO 3 Understanding of Singly Linked List and Chains

CO 4 Implementation of Graph and its applications

CO 5 Study of verity of sorting and its uses

Outcome study and implement of stack , queues ,Binary Trees, Graphs

Department: Computer Science year:II semester:IV

Subject name: Multimedia Application : Major Elective – Subject Code:new

CO 1: Objective of Multimedia of hardware software

CO 2: Understanding text and Graphics element

CO 3: Knowledge about Digital Audio

CO 4: profound knowledge about authoring tools

CO 5: methodologies about multimedia and internet

OUTCOME: To Knowledge and implementation Multimedia Application

Department: Computer Science year:II semester:IV

Subject name: E-Commerce –Allied Subject Code:

CO 1: Deals History of commerce and business models for awareness

CO 2: Deals how WWW Technology applied in E-commerce or E-business

CO 3: Knowledge of e-marketing, browsing behavior models, on line marketing and its Strategies

CO 4: E-Security profound knowledge

CO 5: E-Payment system methodologies

OUTCOME: To understand, Knowledge and applications of E-commerce

II year semester IV

Non-Major Elective Fundamentals of Internet

Co1: Understanding and working of Internet

Co2: Knowledge of WWW, Email

Co3: Developing and Hosting and promoting web site

Co4: understanding E-commerce

Co5: Introducing social networking

Outcome: Implementation of Internet concepts

Department: Computer Science year:II semester:IV

Subject name: Data Structure Lab Subject Code: new

Out Come: To Develop and Implement Algorithmic Concepts

Using c++ such as BFS AND DFS and Sorting

Department: Computer Science year:II semester:IV Allied

Subject name: Scripting Language :HTML : Practical Subject Code: new

Out Come: To Develop and Implement HTML form, navigation Bar

With embed Audio and Video

Department: Computer Science year:II semester:IV

Subject name: XML : Skill Based Practical Subject Code: new

Out Come: To Develop and Implement XML AND CSS XSLT

SEMESTER:V

Department : Computer Science year: III Semester: V

Subject name : Software Engineering Subject Code: GMCS51

CO1: Concept of Fundamentals of Software Engineering

CO2: Understanding requirement analysis.

CO3: Function oriented Software Design

CO4: Developing user interface design

CO5: Knowledge of Software Quality Management.

OUTCOME To develop Software Project Engineering Skill

Department: Computer Science year:III semester:V

Subject name: Computer Graphics and Multimedia Subject Code:GMCS52

CO 1: Knowledge of different types of displays and drawing algorithms

CO 2: Understanding and implentation of attributes of output and Geometric Transformation

CO 3: Viewing and clipping operations and algorithms implementation

CO 4: Introduction and Understanding of Interactive Input Methods and Three Dimensional Viewing

CO 5: Introduction, Knowledge and Understanding of Multimedia

OUTCOME: Learning and Implementation of Computer Graphics algorithms.

Department : Computer Science year: III Semester: V

Subject name : WEB TECHNOLOGY Subject Code: GMCS53

CO1: The Internet, history of Internet, Web concepts are discussed. Internet protocols and application protocols are explained.

CO2: The skeleton of HTML, table, anchor, frames, forms tags are described.

CO3: VBScripts and Java Scripts are used for enhancing web pages and servers.

CO4: PHP code is embedded inside a regular HTML document and is recognized and executed by the web server when the document is requested through a browser.

CO5: Using PHP, how to use arrays to group related form controls together and how to create custom functions and abstract them into separate files.

OUTCOME: Gathering knowledge about Web design, Internet and PHP concepts

III year Semester V

Elective ASP.Net GMCS5C

Co1: To acquire the basic knowledge of .NET framework and .NET languages

Co2: Understanding the concept of types, objects and namespaces and setting up ASP.NET

Co3: Explaining the ASP.NET applications and web form fundamentals

Co4: Basic stepping up to web controls and using Visual Studio.NET

Co5: Introducing various validation, rich controls and ADO.NET

Outcome: To gain the knowledge in .Net framework and Internet programming

Department: Computer Science year:III semester:V

Department: Computer Science year: III semester: V

Subject name: Computer Graphics and multimedia lab Subject Code: GMCSP5

OUTCOME: Implementation of Computer Graphics Algorithms such as transformations, DDA, BRESENHAM'S line drawing and displaying various methods. Of multimedia animation.

SEMESTER: VI

Department: Computer Science year:III semester:VI

Subject name: Operating Systems Subject Code: GMCS61

CO 1: Understanding of Introduction to operating systems with different types and structures

CO 2: Knowledge of Process Management and CPU scheduling algorithms

CO 3: Understanding and implementation of process synchronization and deadlock

CO 4: Implementation of Memory management terms allocation, paging, segmentation and virtual Memory

CO 5: Profound knowledge of File System interface, implantations and mass storage structures

OUTCOME: To implement, knowledge and getting ideas of writing new application software.

CO1: The primary goal of a DBMS is to provide an environment that is both convenient and efficient for people to use in retrieving and storing information.

CO2: The relational data model is based on the tables. The super key, foreign key, schema diagrams are explained. Relational algebra operations are also discussed.

CO3: SQL DDL is used to create relations with specified schemas. SQL supports basic set operations on relations. SQL supports nested sub queries.

CO4: The ER data model is widely used data model for data base design. We introduced the concept of functional dependencies and normal forms.

CO5: Basic SQL commands like INSERT, UPDATE, DELETE and SELECT are discussed. Triggers, Stored Procedures and Functions are created and explained.

OUTCOME: Getting knowledge for Database concepts, SQL and PL/SQL.

Department : Computer Science year: III Semester: VI

Subject name : RDBMS (Practical) Subject Code: GMCSP6

CO1: Creating database with tables Department, Employee details and pay details. Creating queries to retrieve relevant information from a table.

CO2: Creating Views from the existing tables. Developing queries to retrieve an information from more than one table. Creating Partition table.

CO3: PL/SQL programs to print multiplication table, to check whether the given string is palindrome or not.

CO4: PL/SQL programs to print student details, to perform updation with various triggers.

CO5: PL/SQL programs to find factorial of a number, to calculate electricity bill.

OUTCOME: Getting knowledge about Database and SQL queries.

Department : Computer Science year: III Semester: VI Subject name

: Software development lab Subject Code: GMCSP7

Out come : To motivate the students for developing and implimentating software skill and programming in depth knowledge covering B.Sc computer science major subject

B.Sc Physical Education Health Education and Sports Semester I

Foundation of Physical Education**Sub. Code: SMPE11**

- Co1 understand the meaning, nature, need and scope of physical education and sports.
- Co2 study about the scientific principles from various allied subjects in the field of physical education and sports.
- Co3 describe the national programmes of physical education and sports and youth welfare programmes in the field of physical education and sports; and
- Co4 analyse the historical review of physical education and sports activities of Indian heritage.
- Co5 Know about sports Competitions

Theories of Gymnastics**Sub. Code: SMPE12**

- Co1 Know about the History of Gymnastics
- Co2 Understand the training qualities
- Co3 Know about the floor exercise for men
- Co4 Know about the floor exercise for women
- Co5 Understand the completion rules, officiating and equipments

Anatomy and Physiology**Sub. Code: SAPE11**

- Co1 understand the basic concept of anatomy and physiology and their implications in the field of Physical Education;
- Co2 analyse the structure and function of tissue;
- Co3 study and interpret the structure and function of various systems of the body; and
- Co4 analyse the metabolism and thermal regulation of the body
- Co5 Understand about digestive system and nervous system

Anatomy and Anthropometric Measurement (Practical)**Sub. Code: SAPEP1**

- Co1 Know about skeletal system and muscular system
- Co2 Know about Cardio vascular system and respiratory system
- Co3 Know about digestive system and nervous system
- Co4 Know about kin anthropometric equipments
- Co5 Know about body measurements

Gymnastic (Practicals)**Sub. Code: SMPEP1**

- Co1 To know about floor exercises
- Co2 To know about the Pommel Horse
- Co3 To understand the exercises in Parallel Bar
- Co4 To know about Horizontal Bar and exercises
- Co5 To understand about Roman Ring exercises

Semester II**Theories of Yoga**

- Co1 understand the meaning, nature, need and scope of yoga

- Co2 Know about the History of yoga
- Co3 understand the concept of yoga;
- Co4 acquire knowledge on asanas, Bandhas, Mudras and pranayama;
- Co5 To acquire knowledge about meditation

Statistics in Physical Education

- Co1 understand the meaning, nature, need and importance of statistic in physical education and sports
- Co2 Know about frequency distribution, measure of central tendency and grouped data
- Co3 Understand the measure of variability, range and quartile deviation
- Co4 know about percentiles, deciles and quartiles
- Co5 Understand the measure of relationship, correlation and rank order correlation

Health Education, Safety Education and First aid

- Co1 understand the meaning of health and relationships among the various aspects of health;
- Co2 analyse the principles and characteristics of health education;
- Co3 understand the importance of the hygiene and practices related to maintenance and promotions of health;
- Co4 prepare obligatory measures to prevent the contemporary health problems which are related to the community; and
- Co5 understand the importance of safety education for preventing accidents and its general principles

Yoga (Practical)

- Co1 understand the asanas
- Co2 understand the Bandhas
- Co3 acquire knowledge on pranayama;
- Co4 To Know about Kriyas
- Co5 To Know about Meditation Types

First Aid (Practical)

- Co1 learn about first aid kit and general principles for fracture
- Co2 to know first aid for bleeding, direct pressure, indirect pressure points
- Co3 understand the first aid for muscle strain and muscle cramp
- Co4 learn about first aid for joint sprain and dislocation
- Co5 to know the sports injuries

III Semester

Psychology and Sociology in Physical Education

Sub. Code: JMPE31

- Co1 Understand the meaning, scope and nature of psychology and sociology of physical education and sports.

Co2 analyse the factors which affect the learning process, role of perception in physical education and sports.

Co3 analyse the role of motivation in physical education and sports and

Co4 Interpret the sports and social problem, behavior of sportsmen and spectators and leadership through physical education and sports.

Co5 To Know about the Autogenic Training

Computer Applications in Physical Education

Sub. Code: JAPE31

Co1 to know the procedure of testing various abilities in Sports

Co2 to know the procedure of measuring various abilities in Sports

Co3 acquire an overview of a personal computer and its accessories

Co4 understand the features of MS Excel

Co5 Know about office management teaching, learning and coaching: power point presentation

Sports Medicine

Sub. Code: JSPE3A

Co1 To Know about the need and importance of Sports Medicine

Co2 To know about the Importance of Sports Medicine

Co3 To Understand the Sex Difference in Sports

Co4 To study about sports injuries and treatment

Co5 To Study about the Bandages

IVSemester

Organization and Administration in Physical Education

Sub. Code: GMPE41

Co1 understand the meaning of methods in physical education; analyse the factors influencing methods;

Co2 understand the presentation technique and teaching aids;

Co3 study about the lesson play in physical education;

Co4 understand the methods of teaching physical activities

Co5 enable the students to know the procedures in conducting the tournaments in league and knock out basis and to study about games tours, incentives, awards and classifications.

Applied Kinesiology & Bio mechanics

Sub. Code: GAPEP1

Co1 understand the meaning, aim and objectives and importance of kinesiology and bio mechanics for Physical Education and Sports

Co2 acquire the fundamental concepts of kinesiology for Physical Education and Sports

Co3 acquire knowledge of various types of motions and application of motion in games and sports

Co4 interpret the principles of Biomechanics with suitable examples

Co5 Understand the levers, equilibrium and centre of gravity

Principles and History of Physical Education

Co1 understand the meaning, nature, need and scope of physical education and sports.

Co2 study about the scientific principles from various allied subjects in the field of physical education and sports.

Co3 describe the national programmes of physical education and sports and youth welfare programmes in the field of physical education and sports; and

Co4 analyse the historical review of physical education and sports activities of Indian heritage.

Co5 Know about sports empehhaing

Intensive Teaching Practice

Sub. Code: GMPEP2

Co1 To Understand about Class Handling

Co2 To Know about the assembly and Disposal

Co3 To Study about the Exercise

Co4 To Know about the Exercise with Equipment's

Co5 To Understand the Teaching Skills of Major Games.

Computer Applications in Physical Education (Practical)

Sub. Code: GAPAP2

Co1 to know the procedure MS Word

Co2 to know the procedure of preparing fixtures in MS Word

Co3 to know the procedure of Mail Merge

Co4 understand the features of MS Excel

Co5 to know the procedure of power point presentation

V Semester

Theories of Track and Field

Sub. Code: GMPE52

Co1 trace the history of sports and games in India

Co2 learn the strategy and tactics in sports

Co3 learn various skills in track and field

Co4 be familiar with rules and regulations, and learn the method of officiating for all track and field events.

Co5 learn standard and non standard track, lay out and maintenance

Exercise Physiology

Sub. Code: GMPE5B

Co1 understand the meaning, nature and scope of exercise physiology

Co2 analyse the effects of exercise physiology on various system of the body

Co3 analyse the factors affecting skills, motor ability, Warm-up and metabolic process and

- Co4 interpret the physiological principles on physical education and sports.
- Co5 understand the physiological aspects, high altitude, effect of alcohol, drugs and smoking on athletic performance

Theories of Games (Cricket, Basket Ball, Volley Ball, Hockey, Football) Sub. Code: GMPE51

- Co1 trace the history and working federations
- Co2 develop the fundamental skills and techniques
- Co3 acquire the physiological training, warming-up and motor qualities
- Co4 become familiar with the rules and regulations and their interpretations.
- Co5 learn the method of officiating play field, equipment specifications and scoring

Sports Nutrition Sub. Code: GMPE5A

- Co1 To Know about Meaning and Importance of Nutrition
- Co2 To Understand the Basics of Nutrition
- Co3 To Know about Nutrition Value of Food Stuffs.
- Co4 To Understand about Principles of Weight Control
- Co5 To Know about Energy requirement in sports.

Track Events (Practical) Sub. Code: GMPEP4

- Co1 the strategy and tactics in sports
- Co2 learn learn various skills in track and field
- Co3 be familiar with rules and regulations, and learn the method of officiating for all track and field events.
- Co4 To Know about the various marking of track events.
- Co5 To Know about officiating.

VI Semester

Test, Measurement and Evaluation Sub. Code: GMPE61

- Co1 To Know about the Meaning of Test, Measurements and Evaluation.
- Co2 To Understand the Classification of Test.
- Co3 To Know about Teacher mode test and Standardised Test
- Co4 To Understand the Health related and Skill related Fitness.
- Co5 To Know about motor Skill Tests & Tests of Specific Sports Skills

Sports Physiotherapy Sub. Code: GMPE63

Co1 To Know about need and Importance of Physiotherapy

Co2 To Understand Ultra Sound Waves and Infrared rays.

Co3 To Know about massage therapy and its types

Co4 To know about Classification of Arthritis.

Co5 To know about the Conditions of Heart Diseases.

Principles of Sports Training

Sub. Code: GMPE62

Co1 students the meaning aims and characteristics of sports training

Co2 understand the meaning of sports training load and to analyse the principles of trainings load

Co3 acquire knowledge of preparing plans for the competition and motor development

Co4 understand the flexibility and coordination, know the periodisation

Co5 know the technical preparation and aims, fundamentals

Field events (Practical)

Sub. Code: GMPEP4

Co1 learn the strategy and tactics in the game concerned

Co2 be familiar with rules and regulations and

Co3 learn the method of officiating in the game of specialization

Co4 To Know about the marking of Field events

Co5 To Know about the Skills in Field events

Officiating Track Event (Practical)

Co1 learn the strategy and tactics in the game concerned

Co2 be familiar with rules and regulations and

Co3 learn the method of officiating in the game of specialization

Co4 To Know about the Skills in Track Events.

Co5 To understand the officiating of Track Events.

Sports Physiotherapy GMPEP5

Sub. Code:

Co1 To know about Infra-red radiation

Co2 To understand the general massage technique

Co3 To know about the contra indication of sports massage

Co4 To know about the types of exercise therapy

Co5 To understand the instruments used for exercise therapy

Project

The above examinations, conducted at the end of sixth semester, consist of two components:

- a) Objective type examination on the pattern of competitive examinations.
30 marks
- b) **Viva voce** examination. 20 marks

The students are examined on Hard core and Soft core papers (Theory) studied in the V and VI semesters only. In the comprehension component, the students are tested on their grasp of their subjects of study. Their ability to express and communicate their knowledge is tested in the viva voce examination.

DEPARTMENT: Commerce

Year: 1 Semester: 1

SUBJECT NAME: Financial Accounting – I

SUBJECT CODE: SMCO11

(Learning Outcome / Acquisition)

1. Acquire conceptual knowledge of financial accounting
2. Identify and rectify the errors of Accounting
3. Learn about basic concepts and rules governing Bills of exchange
4. Understand the meaning and various methods of Depreciation
5. Create an idea about single entry system of accounting

DEPARTMENT: Commerce

Year: 1 Semester: 1

SUBJECT NAME: Business Organisation

SUBJECT CODE: SMCO12

(Learning Outcome / Acquisition)

1. Understand about business and its role in society
2. Know about the various types of Business Organizations
3. Learn about partnership business, partnership deed and Partners
4. Gain knowledge about Company form of organization and its kinds
5. Understand about the formation of co-operative organization and its management as per the co-operative societies Act

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Business Economics

SUBJECT CODE: SACO11

(Learning Outcome / Acquisition)

1. Understand and imbibe knowledge on recent economic trends
2. Identify the role of demand in market economy
3. Analyze the factors of production, various concepts of total product, average product and marginal product
4. Impart knowledge about supply and cost analysis
5. Learn about price and output decisions in various market forms

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Advanced Financial Accounting – I

SUBJECT CODE: JMCO31

(Learning Outcome / Acquisition)

1. Understand the meaning of Branch and Departmental Accounts and prepare different types of accounts
2. Learn about Contract and Farm Accounting
3. Know about Hire Purchase and Instalment System and the nuances like Cash price, interest calculations, default and re-possession. Also appreciate the differences between the two systems.
4. Prepare Royalty accounts with concepts like Minimum Rent, Short Workings, recoupment, strike and lock out.
5. Prepare Insolvency accounts of individuals, statement of affairs and deficiency account.

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Banking

SUBJECT CODE:JMCO33

(Learning Outcome / Acquisition)

1. Understand the relationship between banker and customer and to acquire knowledge about the documents used in banks
2. Study the existing banking system
3. Learn about the kinds of deposits and forms of loans advanced by the banks
4. Create an idea about the modernised system of banking
5. Know the functions of Reserve Bank of India

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Company Organisation (Allied)

SUBJECT CODE: JACO31

(Learning Outcome / Acquisition)

1. Create knowledge about the formation of companies and the preparation of documents used
2. Have acquaintance with the company management and their duties, rights etc.
3. Familiarise with the company meetings and proceedings
4. Acquire knowledge about the kinds of company meetings
5. Know the procedure for winding up of companies

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Business Communication (Skill Based)

SUBJECT CODE: JSCO3A

(Learning Outcome / Acquisition)

1. Know the process and importance of communication and to familiarize with its functions and kinds
2. Create knowledge about business correspondence and principles of letter writing
3. Learn about quotations, orders, tenders, salesletters and collection letters
4. Educate the students about job related communication and resume preparation
5. Provide knowledge about employment interview and its process and also suggest useful tips for successful interview

DEPARTMENT: Commerce

Year: 2

Semester: 3

SUBJECT NAME: Introduction to Accountancy (Non Major Elective)

SUBJECT CODE: JNCO3A

(Learning Outcome / Acquisition)

1. Provide knowledge to the students with the basic principles of accounting and the roles of debit and credit
2. Familiarize the students with the preparation of journals and subsidiary books
3. Educate them to prepare ledgers and balancing of ledger accounts
4. Know about the preparation of trial balance and its features and objectives
5. Create an idea about the preparation of final accounts with simple adjustments

DEPARTMENT: Commerce

Year: 3

Semester: 5

SUBJECT NAME: Corporate Accounting – I

SUBJECT CODE: GMCO51

(Learning Outcome / Acquisition)

1. Learn about Issue of shares at par/premium/discount and solve problems on calls in arrears/ calls in advance, forfeiture and reissue of shares, prorate allotment, redemption of preference shares and issue of bonus shares
2. Know about issue/redemption of debentures and underwriting of shares
3. Learn the concept of Profits prior to Incorporation, alteration of share capital and internal reconstruction
4. Gain knowledge on Valuation of Goodwill and shares and solve problems
5. Acquire knowledge on concepts of Amalgamation, Absorption and External Reconstruction and prepare accounts. Also know about the calculation of purchase consideration

DEPARTMENT: Commerce

Year: 3

Semester: 5

SUBJECT NAME: Cost Accounting

SUBJECT CODE: GMCO52

(Learning Outcome / Acquisition)

1. Introduce about the nature, meaning, features, importance and limitation of Cost Accounting. Learn the concept of Cost Centre, Cost Unit, elements of cost and prepare Cost Sheet
2. Learn the concept of Material as an element of cost. Know about purchase control, centralized and decentralized purchasing, solve problems on levels of stock, Economic Order Quantity, ABC Analysis. Learn the concept Bin Card, Stores Ledger. Solve problems on Issue of Materials like FIFO,LIFO etc
3. Know about the concept of Labour as an element of Cost. Understand the different methods of wage payments, remuneration and incentives. Learn about Idle time, Over Time and Labour Turnover
4. Gain knowledge on Overheads as an element of Cost, solve problems on allocation, apportionment, reapportionment and absorption of overheads
5. Understand about Job and Process costing. Also learn about treatment of Process losses and gains

DEPARTMENT: Commerce

Year: 3

Semester: 5

SUBJECT NAME: Business Law

SUBJECT CODE: GMCO53

(Learning Outcome / Acquisition)

1. Learn about the fundamentals of Indian Contract Act, 1872 and gain knowledge on Essentials of a valid contract, Offer, Acceptance, Consideration, Capacity, Free Consent, Legality of objects and contingent contracts
2. Know about how performance of contract is done, how a contract is discharged, what tantamount to breach of contract and remedies available to parties. Also learn about Quasi Contracts
3. Learn about the special contracts of Indemnity and Guarantee

4. Understand the special contracts of Bailment, Pledge and Agency
5. Gain knowledge on Sale of Goods Act, analyze the difference between sale and agreement to sell, sale and Hire Purchase agreement. Learn about Classification of goods and Document of title to goods, Rights and Duties of Buyers and Sellers and rights of an Unpaid Seller

DEPARTMENT: Commerce

Year: 3

Semester: 5

SUBJECT NAME: Income Tax Law and Practice – I (Elective)

SUBJECT CODE: GMCO5A

(Learning Outcome / Acquisition)

1. Understand the basic concepts of Income Tax Act and solve problems on Residential Status, Exempted Incomes
2. Know about Income from Salary, the different allowances / perquisites and solve problems
3. Learn the concept of Income from House Property, Annual value, standard deduction, unrealized rent and compute problems
4. Gain knowledge on Income from Business or Profession, allowances deductible while computing the income, disallowed expenses and problems on computing income from Business and Profession
5. Acquaint about Income from Capital Gains, its types, exemptions available and problems on computing Income from Capital Gains

DEPARTMENT: Commerce

M.Com

Year: 1

Semester: 1

SUBJECT NAME: Management Accounting

SUBJECT CODE: PKCM11

(Learning Outcome / Acquisition)

1. Familiarize the students with the concept, objectives and functions of Management Accounting
2. Provide knowledge about the preparation of Funds Flow Statement and Cash Flow Statement

3. Learn about the techniques of Marginal Costing, Absorption Costing and Break Even Analysis and their managerial applications
4. Provide an introductory analysis of Standard Costing and the technique of Variance Analysis
5. Give an account of Budgetary Control and the various kinds of Budgets used by the Management for effective administration

DEPARTMENT: Commerce M.Com Year: 1 Semester: 1

SUBJECT NAME: Advanced Business Statistics

SUBJECT CODE: PKCM12

(Learning Outcome / Acquisition)

1. Give an introduction about the Statistical concept of Probability Distribution and its applications to business
2. Provide knowledge about testing the hypotheses and Analysis of Variants
3. Give an account of Non Parametric Tests such as Chi-square test, Sign test, Kruskal Wallis test etc
4. Explain Statistical Decision Theory and the criteria for making decisions under condition of risk and uncertainty
5. Learn about Statistical Quality Control and Acceptance Sampling

DEPARTMENT: Commerce M.Com Year: 1 Semester: 1

SUBJECT NAME: Management Concepts and Organisational Behaviour

SUBJECT CODE: PKCM13

(Learning Outcome / Acquisition)

1. Enable the student to understand the framework of management and its functions
2. Learn about Organizational behavior, its evolution, development and relationship between organizational behavior and management
3. Provide knowledge about Group Dynamics, its importance, types of groups and leadership theories
4. Give an account of Organizational change and development, its objectives, models and OD interventionism

5. Explain the concept of Quality of Working life (QWL), Evolution and development of constituents, organizational change and managerial career

DEPARTMENT: Commerce **M.Com** **Year: 1** **Semester: 1**

SUBJECT NAME: Office Automation

SUBJECT CODE: PKCM14

(Learning Outcome / Acquisition)

1. Familiarize the students with tools of MS-Word 10 such as Page Formatting, Mail Merge etc.
2. Enable the students to create MS-Excel Worksheets, using custom and special effects and using financial and statistical functions
3. Explain the objectives of MS-Access database and parts of access window
4. Help the students to create Powerpoint presentation, applying transitions and animation effects
5. Introduce the concept of Business Engineering and Enterprise Resource Planning (ERP) and integrated system approach in business

DEPARTMENT: Commerce **M.Com** **Year: 1** **Semester: 1**

SUBJECT NAME: Modern Marketing Management

SUBJECT CODE: PKCM15

(Learning Outcome / Acquisition)

1. Impart the students with knowledge of Marketing concept, nature, scope and importance of marketing and explain Marketing Mix and Types of Marketing
2. Explain the concept of a Product and Product Decisions such as Branding, Packaging and Labeling
3. Provide knowledge about Marketing Research, Marketing Environment and Marketing Information System
4. Learn about Distribution Channels and Physical Distribution Decisions in retailing and wholesaling
5. Study about Promotion Decisions, Communication Process and Promotion mix and various tools and techniques used in marketing

DEPARTMENT: Commerce **M.Com** **Year: 2** **Semester: 3**

SUBJECT NAME: Advanced Corporate Accounting

SUBJECT CODE: KKCM31

(Learning Outcome / Acquisition)

1. Learn advanced problems on Issue, Forfeiture and Redemption of shares and Debentures, underwriting, Valuation of Goodwill and shares
2. Know about Amalgamation, Absorption and Reconstruction of Companies
3. Acquire knowledge on Final Accounts of Companies, Liquidators final statement and Accounts of Holding Companies
4. Create an idea about Banking and Insurance Companies and Double Account System
5. Learn about meaning, objectives and benefits of Accounting Standards, Accounting Standards Board of India, Accounting Standards issued by the Institute of Chartered Accountants of India, International Financial Reporting Standards, its benefits and scenario in India

DEPARTMENT: Commerce

M.Com

Year: 2

Semester: 3

SUBJECT NAME: Research Methodology

SUBJECT CODE: KKCM32

(Learning Outcome / Acquisition)

1. Know about Research and Research methodology, methods of social research, scope, procedures in research and scientific methods involved
2. Learn about selection and formulation of research problem, research design, sampling methods, determination of sample size, sampling errors and its causes
3. Gather an idea about data collection methods, primary data and secondary data. Also learn about questionnaire, interview schedule and observation methods
4. Acquaint about Statistical Analysis, introduction to software on statistical analysis and websites, learn about commonly used statistical tools in research and scaling techniques
5. Know about processing of data, analysis of data, interpretation of statistical data, frame a research report, problems and precautions required, conventions while preparing research report. Also learn about Bibliography

DEPARTMENT: Commerce

M.Com

Year: 2

Semester: 3

SUBJECT NAME: Taxation & Tax Planning

SUBJECT CODE: KKCM33

(Learning Outcome / Acquisition)

1. Learn about basics of Income tax act, residential status of assessee, incidence of tax and exempted income
2. Know about computation of taxable income under heads of Salary, House Property, Business, Capital Gains and Other sources
3. Acquaint with provisions of Clubbing of Income, set off & carry forward of losses, deductions from Gross Total Income and calculation of tax liability
4. Learn about tax planning and tax management of individuals, Hindu Undivided Family and Association of Persons
5. Gather idea about Income Tax Authorities, procedure of assessment, collection/recovery of tax and refunds

DEPARTMENT: Commerce

M.Com

Year: 2

Semester: 3

SUBJECT NAME: E Commerce

SUBJECT CODE: KKCM34

(Learning Outcome / Acquisition)

1. Introduction, meaning, significance and scope of ecommerce, its advantages and disadvantages, technical and non-technical limitations and online sites in India
2. Learn about ecommerce modules like B2B, B2C, electronic retailing and malls. Also know about Electronic catalogs, interactive advertising, benefits and limitations of internet advertising and business opportunities in ecommerce
3. Know about the concepts of Internet, Intranet and Extranet with mobile commerce technology
4. Introduce the concept of Electronic Data Interchange and its applications like SMTP, POP, FTP, network layers and TCP/IP protocols
5. Acquaint with ecommerce supporting functions like purchase and sale procedures, supply chain management, value chain, electronic payment system, digital signature, encryption,

electronic certificate, firewall and secure electronic transaction. Also know about computer crimes and security in Ecommerce

DEPARTMENT: Commerce **M.Com** **Year: 2** **Semester: 3**

SUBJECT NAME: Human Resource Management

SUBJECT CODE: KKCM35

(Learning Outcome / Acquisition)

1. Learn about meaning, definition, need for Human Resource Management, its trends and role of HR managers
2. Conceptual understanding of Job Design, Job Analysis, Job description, job specification, recruitment, selection procedure, types of tests, interviews and qualities of a successful interviewer
3. Know about meaning, importance, benefits and need for training and assessment methods. Objectives of management development
4. Acquaint with Job Evaluation, Salary Administration, factors affecting wage levels, Fringe Benefits, its objectives and types
5. Understand the meaning, characteristics, objectives, functions and conditions of Industrial Relations. Know about meaning, characteristics and functions of trade unions, learn about collective bargaining, its characteristics, need, principles and importance. Learn about grievance and discipline procedure

DEPARTMENT: Commerce **Year: 1** **Semester: 2**

SUBJECT NAME: Financial Accounting – II **SUBJECT CODE:**

(Learning Outcome / Acquisition)

1. Understand about the Consignment form of business and carryout the accounting procedure
2. Create an idea about the working frame of non-trading concerns
3. To know about Joint Venture and understand the difference between Partnership and Joint Venture form of business organization

4. Provide real life opportunities to manage business accounts by preparing Average Due Date and Account Current.

5. Learn about Insurance Claims and Self Balancing Ledgers

DEPARTMENT: Commerce

Year: 1

Semester: 2

SUBJECT NAME: Principles of Management

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Familiarize the students with concepts and Principles of Management
2. Impart knowledge about Planning and Decision Making
3. Understand about Organizing and Principles of Organizing
4. Know about Directing and its importance
5. Learn about the role of co-ordination and control in the successful functioning of an organization

DEPARTMENT: Commerce

Year: 1

Semester: 2

SUBJECT NAME: Marketing

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Understand the basic concepts of Marketing
2. Impart knowledge about Marketing Mix and Market Segmentation
3. Create skills to develop marketing strategies based on product
4. Learn about the marketing of consumer goods
5. Understand the meaning and importance of International Marketing

DEPARTMENT: Commerce

Year: 2

Semester: 4

SUBJECT NAME: Advanced Financial Accounting – II

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Know about basic principles governing Partnership accounts along with past adjustments and guarantee
2. Prepare accounting problem for admission of a partner, revaluation account, adjustments of goodwill and capital
3. Work out problem on Retirement / death of a partner and to know about Joint Life Policy
4. Learn about the accounting procedure for Dissolution of partnership firms

5. Prepare accounting for Amalgamation of firms, Sale of Partnership firms to a Company and Piecemeal distribution of assets

DEPARTMENT: Commerce

Year: 2

Semester: 4

SUBJECT NAME: Business Taxation (Major Elective -1) SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Understand the basics about Indirect taxes, its special features, pros & cons while appreciating the differences between Indirect and Direct taxes and major tax reforms in India
2. Learn about Central Excise Duty, its types, valuation, clearance and exemptions with procedure for assessment
3. Know about Customs Duty, its objectives, types, assessment procedure, clearance of goods, warehousing rules and Duty Drawback
4. Identify the provisions of Service tax, its elements, valuation and procedures
5. Know about Value Added Tax, types and rates along with solving problems

DEPARTMENT: Commerce

Year: 2

Semester: 4

SUBJECT NAME: Computer Applications in Business (Allied)

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Learn about the basics of Computers like IPO cycle, components, hardware and software, Operating system
2. Know about e-Commerce and e-Business
3. Understand about the consumer oriented e-commerce applications
4. Know the conceptual framework of Electronic Data Interchange
5. Appreciate the E-marketing and E-advertising techniques

DEPARTMENT: Commerce

Year: 2

Semester: 4

SUBJECT NAME: Entrepreneurship Development (Skill Based Course)

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Learn about the basic concept of Entrepreneurship, types of Entrepreneurs, their function and qualities and their role in economic development

2. Analyze factors affecting entrepreneurial growth, concept of women entrepreneurship, their functions and problems faced
3. Overview about Micro Small and Medium Enterprises, government policies, support measures, incentive schemes and problems encountered by these enterprises
4. Know about the different Industrial Finance options for Entrepreneurs like SIDBI, TIIC, EDII, NAYE, KVIC, DIC
5. Visualize the concept of Project Report, its meaning, contents, appraisal, marketing / technical / financial and economic feasibility

DEPARTMENT: Commerce

Year: 2

Semester: 4

SUBJECT NAME: Financial Accounting (Non Major Allied)

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Know the basic preparation of Average Due Date
2. Understand and Work out Bank Reconciliation Statement, analyze the reasons for differences between Pass Book and Cash Book
3. Learn about Self Balancing and Sectional Balancing Ledgers
4. Identify the causes of Depreciation and solve simple problems under various methods
5. Imbibe the concept of rectification of errors and apply on simple problems

DEPARTMENT: Commerce

Year: 3

Semester: 6

SUBJECT NAME: Corporate Accounting – II

SUBJECT CODE: GMCO61

(Learning Outcome / Acquisition)

1. Learn to prepare Liquidator's final statement
2. Know Holding Company accounts with minority interest, capital profits, cost of control adjustments. Prepare consolidated Balance Sheet.
3. Understand and work out problems of Banking Companies as per Banking Regulation Act format

4. Prepare double account system and analyse the difference between this with single entry system and double entry system. Also prepare final accounts by assessing capital base disposal of surplus and reasonable returns
5. Prepare Accounting ratios and learn about responsibility and human resource accounting

DEPARTMENT: Commerce

Year: 3

Semester: 6

SUBJECT NAME: Management Accounting

SUBJECT CODE: GMCO62

(Learning Outcome / Acquisition)

1. Learn the basics of Management Accounting, its objectives, advantages and disadvantages. Also analyse its difference with Financial Accounting and Cost Accounting
2. Compute Fund and Cash Flow Statements, understand its difference
3. Know about Marginal Costing with concepts like P/V Ratio, CVP analysis, Break Even analysis and Margin of Safety also understand its advantages and limitations
4. Learn about Standard costing and budgetary control, their advantages and disadvantages, analyse material – labour and overhead variances
5. Learn about Budgets and budgetary control, their meaning, objectives, features, advantages and limitations. Also prepare flexible, cash, production, purchase and sales budgets.

DEPARTMENT: Commerce

Year: 3

Semester: 6

SUBJECT NAME: Industrial Law

SUBJECT CODE: GMCO63

(Learning Outcome / Acquisition)

1. Know the various provisions of Factories Act, 1948
2. Learn the rules stated in Workmen Compensation Act, 1923
3. Understand the provisions of Industrial Disputes Act, 1947
4. Know about Trade unions act, 1926 and Payment of Bonus Act, 1972
5. Learn about the provisions of Employees State Insurance Act, 1948 and Payment of Gratuity Act, 1972

DEPARTMENT: Commerce

Year: 3

Semester: 6

SUBJECT NAME: Income Tax Law & Practice – II

SUBJECT CODE: GMCO6A

(Learning Outcome / Acquisition)

1. Learn the rules relating to computation of Income from Other Sources
2. Know about the provisions of Set Off and Carry Forward of Losses and Gross Total Income
3. Know about assessment procedure, types of returns and assessments. Also know about the rules relating to Tax Deducted at Source
4. Understand the provisions relating to assessment of Individuals and solve problems on computation of tax liability
5. Learn the provisions relating to assessment of firms including Sec 40(b) and solve problems on assessment of firms

DEPARTMENT: Commerce

Year: 3

Semester: 6

SUBJECT NAME: Auditing

SUBJECT CODE: GMCO64

(Learning Outcome / Acquisition)

1. Know about the basics of Auditing, advantages and limitations. Also know about Audit Programme, Audit Working Papers, audit preliminaries and test checking
2. Learn about internal check, internal control and internal audit.
3. Understand about vouching and vouchers
4. Get an idea about how verification of assets and liabilities are made

5. Learn the provisions regarding Company Auditor, their appointment, qualifications and disqualifications, removal, status, rights, duties and liabilities. Also know about the types of auditor reports

DEPARTMENT: Commerce MCom Year: 1 Semester: 2

SUBJECT NAME: Entrepreneurship Development (Elective)

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Know about basic meaning of entrepreneur, types, characteristics, factors affecting their growth, knowledge / skill required and their functions
2. Understand the concept of entrepreneurial motivation, training for motivation, self-rating, stress management and development programme
3. Learn the meaning, characteristics, objectives, merits, demerits, importance and problems of Micro Small and Medium Enterprises. Also learn the steps involved in starting up a business
4. Know about Need and source of finance, Term loans, capital structure, Financial institutions providing finance and rules relating to taxation
5. Impart the concept of women entrepreneurship, reasons for slow growth in India, problem faced by them and measures for development. Also learn about sickness of small business, consequences and connective measures

DEPARTMENT: Commerce M.Com Year: 1 Semester: 2

SUBJECT NAME: Financial Management

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Acquaint with meaning, nature, objectives and scope of Financial Management. Know the differences between profit vs. wealth maximization, functions of finance, role of finance manager and Time value of Money

2. Understand the meaning of Capital Budgeting and various investment decisions, Capital Rationing and risk analysis
3. Learn the significance, importance and concept of Cost of Capital
4. Know the various capital structure theories, measurement of Operating, Financial and combined Leverage
5. Imbibe the meaning and significance of Working capital, its types and estimate working capital requirements

DEPARTMENT: Commerce M.Com Year: 1 Semester: 2

SUBJECT NAME: Quantitative Techniques for Decision Making

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Introduce to the students the basic concepts of Linear Programming
2. Acquaint the concept and formulation of Transportation Problems with different methods for solving it
3. Learn the concept of mathematical formulation of assignment problem. Solve balanced / unbalanced, Minimization / Maximization, restricted / reserved routes, travelling sales man problems
4. Know about Project Management and Queuing Models, understand the different types of networks like PERT and CPM
5. Understand Replacement analysis and Simulation

DEPARTMENT: Commerce M.Com Year: 1 Semester: 2

SUBJECT NAME: Legal Framework of Business

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Learn the important provisions of Payment of Wages act, Payment of Bonus Act, Industrial Disputes Act and Sale of Goods Act, 1930
2. Understand the important provisions of Companies Act,2013 with respect to Board of Directors, Manager, Managing Director, types of meetings, powers/duties/liabilities of directors and Corporate Governance
3. Know the objectives and provisions of Foreign Exchange Management Act, 1999
4. Study the environmental legislations Legal and regulatory frame work, obtaining environmental clearance, functions of environmental tribunal and Environment Audit
5. Know the important provisions of Consumer Protection Act, Competition Act-2002 and IT Act 2000/2002

DEPARTMENT: Commerce M.Com

Year: 1

Semester: 2

SUBJECT NAME: Business Environment

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Learn the basic concepts of Business Environment, techniques, merits and demerits of environmental analysis, types of environmental forecasting
2. Analyze the relationship between business and society, Business Ethics and values, culture and business and Corporate Governance
3. Understand the growth and performance of Public Sector, new public sector policy, organization of public enterprises, pricing strategy of different sectors, disinvestment and privatization in India
4. Know about Globalization of Business, stages, essential conditions, Pros and Cons. Also know the role of WTO and international investments, types of foreign investments, multinational corporations
5. Acquaint the students with social responsibility of business, social orientation and social audit

DEPARTMENT: Commerce M.Com

Year: 1

Semester: 2

SUBJECT NAME: Retail Management

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. To introduce the meaning, concept, functions and importance of Retailing. Impart the formats of retailing and retail trends in India
2. Understand the concept of retail merchandising, its process and methods. Gain knowledge on retail merchandising mix, merchandise buying and analyzing merchandise performance
3. Know about the retail location strategy, retail franchising, types of retail location / site locations, retail location theories and strategic retail planning process
4. Learn about market segmentation, targeting, positioning and criteria for market segmentation
5. Acquaint about retail store operation, management of retail outlet, role of centralized retailers and store maintenance

DEPARTMENT: Commerce M.Com

Year: 2

Semester: 4

SUBJECT NAME: Advanced Cost Accounting

SUBJECT CODE:

1. Know the meaning of Cost Accounting, differences between Cost & Financial Accounts, analysis of Cost Centre and cost concepts, Installation of Cost system and preparing cost sheet. Also know about Tenders and Quotations
2. Learn about cost determination and control over elements of costing viz., Material, Labour and Overheads
3. Understand methods of costing like Job Costing, Process Costing with inter process profits and equivalent production and Joint/By Product costing with problem solving

DEPARTMENT: Commerce M.Com Year: 2 Semester: 4

SUBJECT NAME: Project

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. The students must individually choose a problem, frame hypothesis and analyze the data collected (Primary or Secondary) statistically and arrive at suggestions / conclusion
2. The projects will be evaluated by external examiner nominated by the University

(Subject codes which are not yet allotted by university are left blank)

DEPARTMENT: ENGLISH I B.A SEMESTER: I

SUBJECT NAME: PART II –ENGLISH (EXPRESSIONS I) SUB CODE: S2EN11

OBJECTIVES:

- TO INTRODUCE STUDENTS TO SOME OF THE BEST WORKS OF ENGLISH LITERATURE.
- TO SHARPEN THEIR LANGUAGE SKILLS
- TO HELP STUDENTS READ AND ENJOY GOOD LITERATURE IN ENGLISH
- TO OFFER A HOLISTIC APPROACH ENCOMPASSING READING, WRITING, SPEAKING AND LISTENING IN KEEPING WITH THIS TREND
- TO HELP THE LEARNER TO MASTER THE NUANCES OF THE LANGUAGE

DEPARTMENT: ENGLISH I B.A ENGLISH SEMESTER I

SUBJECT: INDIAN WRITING IN ENGLISH I SUB CODE: SMEN11

OBJECTIVES:

- TO INTRODUCE THE LEARNERS THE RICH LITERARY TRADITION IN INDIAN WRITING IN ENGLISH
- TO ACQUAINT THE STUDENTS THE VARIOUS GENRES IIN INDIAN WRITING IN ENGLISH
- TO ENRICH TH ESTUDENTS IMAGINATION AND CREATIVITY
- TO MAKE AWARENESS OF THE SOCIAL CULTURE THROUGH FICTION AND DRAMA

- TO DEVELOP THEIR WRITING SKILLS THROUGH INSPIRED STORIES

DEPARTMENT: ENGLISH I B.A
SUBJECT NAME: BRITISH FICTION

SEMESTER I
SUB CODE: SMEN12

OBJECTIVES:

- TO FAMILIARIZE THE STUDENTS WITH THE EVOLUTION OF THE GENRE OF FICTION IN BRITAIN
- TO ENHANCE VOCABULARY AND USAGE OF ENGLISH THROUGH READING
- TO DEVELOP THEIR READING ABILITY THROUGH VARIOUS FICTIONS
- TO ENRICH THE POWER OF CHARACTER ANALYSING
- TO MOULD THEM IN SOLVING THE CRITICAL CIRCUMSTANCES

DEPARTMENT: ENGLISH I B.A
SUBJECT NAME: AUSTRALIAN LITERATURE

SEMESTER I
SUB CODE: SMEN13

OBJECTIVES:

- TO INTRODUCE THE STUDENTS TO THE AUSTRALIAN LITERARY TEXTS AND APPROACH THEM FROM A POSTCOLONIAL PERSPECTIVE
- TO MAKE HIM APPROACH SELECTED TEXTS FOR THEIR LITERARY VALUE AND CULTURAL IMPORTANCE
- TO ENRICH THE STUDENTS IMAGINATIVE POWER THROUGH VARIOUS POEMS
- TO MAKE AWARENESS ON RACIAL DISCRIMINATION
- TO ENHANCE THEIR WRITING SKILLS THROUGH INSPIRED STORIES

DEPARTMENT: ENGLISH I B.A
SUBJECT NAME: SOCIAL HISTORY OF ENGLAND

SEMESTER I
SUB CODE: SAEN11

OBJECTIVES:

- TO FAMILIARIZE THE STUDENTS WITH THE HISTORICAL MOVEMENTS AND THE CULTURAL POLITICS OF ENGLAND
- TO PROVIDE THE STUDENT THE SOCIAL-CUTURAL BACKGROUND ON WHICH A LITERARY TEXT IS GROUNDED
- TO MAKE THEM TO KNOW ABOUT THE SOCIAL STATUS OF ENGLAND PEOPLE
- TO ENHANCE THEIR ANALYSING CAPACITY

- TO PROMOTE THEM ON RESEARCH ACTIVITIES

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: PART II –ENGLISH (EXPRESSIONS II)

CODE:

OBJECTIVES:

- TO INTRODUCE STUDENTS TO SOME OF THE BEST WORKS OF ENGLISH LITERATURE.
- TO SHARPEN THEIR LANGUAGE SKILLS
- TO HELP STUDENTS READ AND ENJOY GOOD LITERATURE IN ENGLISH
- TO OFFER A HOLISTIC APPROACH ENCOMPASSING READING,WRITING,SPEAKING AND LISTENING IN KEEPING WITH THIS TREND
- TO HELP THE LEARNER TO MASTER THE NUANCEES OF THE LANGUAGE

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: INDIAN WRITING IN ENGLISH –II

CODE:

OBJECTIVES:

- TO FAMILIARIZE THE STUDENT WITH THE MAJOR INDIAN WRITERS WRITING IN ENGLISH AND THEIR WORKS
- TO INTRODUCE THE LEARNERS THE RICH LITERARY TRADITION IN INDIAN WRITING IN ENGLISH
- TO ACQUAINT THE STUDENTS THE VARIOUS GENRES IIN INDIAN WRITING IN ENGLISH
- TO ENRICH TH ESTUDENTS IMAGINATION AND CREATIVITY
- TO ENABLE HIM TO UNDERSTAND THE GROWTH OF INDIAN WRITING

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: AMERICAN LITERATURE

CODE:

OBJECTIVES:

- TO ACQUAINT THE STUDENTS WITH DIFFERENT LITERARY ERA, MOVEMENTS AND AUTHORS RELATING TO AMERICAN HISTORY AND LITERATURE
- TO ENHANCE COMMUNICATIVE AND CREATIVE SKILLS THROUGH LITERATURE
- TO ACCOMPLISH THIS BY COMBINING CLASSIC FICTIONAL TEXTS WITH RELATED NON FICTIONAL TEXT
- TO OBSERVE THE CHARACTERISTICS OF DIFFERENT LITERARY ERAS.

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: ENGLISH GRAMMAR AND USAGE

CODE:

OBJECTIVES:

- TO ENHANCE THE COMMUNICATIVE COMPETENCE BY IMPROVING THE GRAMMATICAL SKILLS
- TO STRENGTHEN THE WRITING SKILLS BY AUGMENTING THE GRAMMATICAL SKILLS
- ENABLE THE STUDENTS TO USE ENGLISH CORRECTLY AND CONFIDENTLY
- TO UNDERSTAND THE GRAMMAR STRUCTURE BY TALKING ABOUT IT IN PAIR/GROUP WORK
- TO MAKE THEM ABLE TO SELF-CORRECT WHEN USING TARGETED GRAMMATICAL STRUCTURES

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: LITERARY FORMS

CODE:

OBJECTIVES:

- TO INTRODUCE THE VARIOUS GENRES AND FORMS OF LITERATURE
- TO EXPLORE LITERARY FORMS AND ITS GENRES
- TO HAVE AN IDEA ABOUT THE FOUR MAJOR LITERARY FORMS
- TO DEMONSTRATE AN ABILITY TO GRASP AND SYNTHESIZE IDEAS IN LITERARY FORM
- TO USE LITERARY TERMS IN HISTORICAL CONTEXTS

I B.A ENGLISH

SEMESTER II

SUBJECT NAME: VALUE BASED EDUCATION

CODE:

OBJECTIVES:

- TO VALUE EDUCATION IMPARTS SOCIAL, MORAL, CUTURAL, SPIRITUAL, AND HUMAN VALUES.
- TO DEVELOP THEIR PERSONALITY DEVELOPMENT
- TO MOULD THEM IN MORAL DEVELOPMENT
- TO BULID A PERSON’S OVERALL CHARACTER.
- TO MAKE HIM ACCEPTABLE BY ALL

IIB.A ENGLISH

SEMESTER III

SUBJECT NAME: PART II –ENGLISH (EXPRESSIONS III)

CODE: J2EN31

OBJECTIVES:

- TO INTRODUCE STUDENTS TO SOME OF THE BEST WORKS OF ENGLISH LITERATURE.
- TO SHARPEN THEIR LANGUAGE SKILLS
- TO HELP STUDENTS READ AND ENJOY GOOD LITERATURE IN ENGLISH
- TO OFFER A HOLISTIC APPROACH ENCOMPASSING READING, WRITING, SPEAKING AND LISTENING IN KEEPING WITH THIS TREND
- TO HELP THE LEARNER TO MASTER THE NUANCEES OF THE LANGUAGE

IIB.A ENGLISH

SEMESTER III

SUBJECT NAME: BRITISH POETRY

CODE: JMEN31

OBJECTIVES:

- TO PROVIDE A HISTORICAL PERSPECTIVE OF BRITISH POETRY
- INTERPRETATION AND APPRECIATION OF THE SELECTED TEXTS FROM THE GENRE OF POETRY.
- TO ENRICH THE PUPIL’S CREATIVITY AND IMAGINATION.
- TO ENHANCE THE KNOWLEDGE IN SCHOOL OF POETRY STREAMS AND MOVEMENTS IN BRITISH POETRY.
- ENHANCING AWARENESS OF SPECIFIC DIMENSIONS OF CROSS- CULTURAL READING.

IIB.A ENGLISH

SEMESTER III

SUBJECT NAME: HISTORY OF ENGLISH LITERATURE-I

CODE: JAEN31

OBJECTIVES:

- TO GIVE A CLEAR AND SYSTEMIC UNDERSTANDING OF THE NATIONAL CHANGES AND DEVELOPMENTS THAT INFLUENCED BRITISH LITERATURE.
- TO FAMILIARIZE THE STUDENTS ABOUT THE HISTORICAL MOVEMENTS THAT INFLUENCED THE TRANSFORMATION OF THE LITERARY TASTES AND STANDARDS.
- TO ENHANCE APPRECIATION AND ENJOYMENT OF LITERATURE AND LANGUAGE.
- TO CLOSE READING OF AUTHORS, THEIR AGE, ETC.,
- TO DEVELOP INTEREST IN AND APPRECIATION OF LITERATURE.

IIB.A ENGLISH

SEMESTER III

SUBJECT NAME: PHONETICS AND SPOKEN ENGLISH

CODE: JSEN3A

OBJECTIVES:

- TO IMPART PROFICIENCY IN PRONUNCIATION AND ORAL COMMUNICATION.
- TO LEARN THE BASIC SKILLS REQUIRES DOING PHONETIC RESEARCH.
- TO USE APPROPRIATE LANGUAGE SKILLS FOR VARIOUS COMMUNICATIVE FUNCTIONS IN DIFFERENT SOCIO-CULTURAL CONTEXTS.
- TO PARTICIPATE IN SPONTANEOUS SPOKEN DISCOURSE IN FAMILIAR SOCIAL SITUATIONS BY LISTENING THE LESSONS.
- ACQUIRES AN UNDERSTANDING OF SPEECH AS THE MEDIUM OF LINGUISTIC COMMUNICATION.

IIB.A ENGLISH

SEMESTER III

SUBJECT NAME: NON MAJOR ELECTIVE-I (INTRODUCTION TO COMPUTER)

CODE: JNCA3B

OBJECTIVES:

- UNDERSTAND BASIC FUNCTIONS OF COMPUTER HARDWARE AND SOFTWARE COMPONENTS INCLUDING OPERATING SYSTEM FUNCTIONS
- IDENTIFY VARIOUS NETWORKS (LAN, WAN, INTRANET), TOPOLOGIES (RING, BUS, STAR), PROTOCOLS (TCP/IP, SMTP, POP & IMAP, HTTP & HTTPS, DNS), MEDIA TYPES (WIRE PAIR, COAXIAL CABLE, FIBER OPTICS, MICROWAVE, RADIO FREQUENCY, INFRA-RED), AND NETWORK HARDWARE (ROUTER, HUB, GATEWAY)

- KNOW HOW TO USE SEARCH TECHNIQUES (INCLUSION, EXCLUSION, WILDCARDS, PHRASE, BOOLEAN SEARCH), EVALUATE THE INFORMATION FOUND ON WEB PAGES (CHAT ROOMS, NEWSGROUPS, RSS, PODCASTING SITES, WIKIPEDIA, BLOGS), AND CITE ELECTRONIC AND PRINTED REFERENCES
- UNDERSTAND COMPUTER VIRUSES, BIOMETRIC DEVICES, ENCRYPTION TECHNIQUE, DIGITAL SIGNATURE, EMAIL FILTERING, FIREWALL, AND PRECAUTIONS ON WEB

IIB.A ENGLISH

SEMESTER IV

SUBJECT: PART II –ENGLISH

CODE:

OBJECTIVES:

- TO INTRODUCE STUDENTS TO SOME OF THE BEST WORKS OF ENGLISH LITERATURE.
- TO SHARPEN THEIR LANGUAGE SKILLS
- TO HELP STUDENTS READ AND ENJOY GOOD LITERATURE IN ENGLISH
- TO ENCOURAGE STUDENTS TO THINK ON THEIR OWN AND FORM THEIR IDEAS.
- TO USE AN APPROPRIATE STYLE AND FORMAT TO WRITE E-MAIL, AGENDA, MINUTES, RESUMES ETC.,

IIB.A ENGLISH

SEMESTER IV

SUBJECT: BRITISH DRAMA

CODE:

OBJECTIVES:

- TO ACQUAINT THE STUDENTS TO THE GROWTH AND DEVELOPMENT OF ENGLISH DRAMA FROM A HISTORICAL PERSPECTIVE.
- TO ACCUSTOM THE STUDENTS TO THE VARIOUS DRAMATIC DEVICES AND TECHNIQUES USED IN THE GENRE.
- TO DEVELOP POSITIVE ATTITUDES TOWARD CONSTRUCTIVE IDEAS AND VALUES THAT IS TRANSMITTED AND DRAMATIZED IN ORAL OR WRITTEN FORMS.

- STUDENTS WILL BE ABLE TO MANIPULATE BODY MOVEMENTS AND FACIAL EXPRESSION TO CONVEY APPROPRIATE EMOTIONS AND MEANING IN DRAMATIZATION.
- ACQUIRE GOOD SPEAKING AND LISTENING HABITS TO UNDERSTAND ENJOY AND APPRECIATE DRAMATIC TEXTS.

IIB.A ENGLISH

SEMESTER IV

SUBJECT: HISTORY OF ENGLISH LITERATURE-II

CODE:

OBJECTIVES:

- TO GIVE A CLEAR AND SYSTEMIC UNDERSTANDING OF THE NATIONAL CHANGES AND DEVELOPMENTS AND THAT INFLUENCED BRITISH LITERATURE.
- TO FAMILIARIZE THE STUDENTS ABOUT THE HISTORICAL MOVEMENTS THAT INFLUENCED THE TRANSFORMATION OF THE LITERARY TASTES AND STANDARDS.
- TO ENHANCE APPRECIATION AND ENJOYMENT OF LITERATURE AND LANGUAGE.
- TO CLOSE READING OF AUTHORS, THEIR AGE, ETC.,
- TO DEVELOP INTEREST IN AND APPRECIATION OF LITERATURE.

IIB.A ENGLISH

SEMESTER IV

SUBJECT: ECO ENGLISH

CODE:

OBJECTIVES:

- TO IMPROVE THEIR COMMUNICATIVE COMPETENCE IN ENGLISH BOTH SPEAKING AND WRITING
- TO AUGMENT THEIR ABILITY TO READ FAST WITH BETTER UNDERSTANDING
- TO EXPRESS THEMSELVES CLEARLY AND CONCISELY USING WRITE WORDS IN RIGHT PLACES
- TO LEARN ENVIRONMENT THROUGH ENGLISH
- INSISTING THE IMPORTANCE OF ENVIRONMENT AND THE BENEFITS OF NATURE.

IIB.A ENGLISH

SEMESTER IV

SUBJECT: NON MAJOR ELECTIVE-II [M.S.WORD 2003]

CODE:

OBJECTIVES:

The students should be made to:

- Learn the organization of a digital computer.
- Be exposed to the number systems.
- Learn to think logically and write pseudo code or draw flow charts for problems.

III B.A ENGLISH**SEMESTER V****SUBJECT:PRE-RAPHELITE AGE AND VICTORIAN AGE****CODE: GMEN51****OBJECTIVES:**

- TO KNOW THE LANGUAGE OF VICTORIAN VERSE.
- TO EXPRESS THE GENUINE IDEAS.
- TO STUDY NATURE ATTENTIVELY, SO AS TO KNOW HOW TO EXPRESS THE IDEAS OF PRE-RAPHELITE.
- TO LEARN THE ART OF THE EXCLUSION OF CONVENTIONAL AND SELF-PARODYING ROLES.
- TO EXPLORE THE FORMS OF BALLAD, LYRIC AND DRAMATIC MONOLOGUE.

III B.A ENGLISH**SEMESTER V****SUBJECT: THE AGE OF HARDY AND MODERN AGE****CODE: GMEN52****OBJECTIVES:**

- TO EXPLICATE THE TRADITIONAL ATTITUDE OF HARDY
- TO DEMONSTRATE THE ALLEGIANCE OF MODERN AGE THROUGH HARDY
- TO TEACH THE MORAL STANDARDS OF HARDY
- TO EXPRESS THE AESTHETIC MOVEMENTS OF MODERN AGE
- TO EXPLORE THE POETIC TECHNIQUES OF TRANSITION PERIOD.

III B.A ENGLISH**SEMESTER V****SUBJECT: WOMEN'S WRITING****CODE: GMEN5B****OBJECTIVES:**

- TO CONCENTRATE ON THE SPECIFIC ASPECTS OF LITERARY WRITING PRODUCED BY WOMEN.
- TO IDENTIFY THE RECURRING THEMES OF WOMEN'S WRITING.

- TO TRACE THE EVOLUTIONARY PATTERNS REGARDING GENDER DISCRIMINATION.
- TO EXPLORE THE INTERCONNECTING STABILITY OF WOMEN'S TRADITION THROUGH THEIR LITERATURE.
- TO PROMOTE THE NOTIONS OF FEMININE SOCIAL LITERARY BACKGROUND.

III B.A ENGLISH

SEMESTER V

SUBJECT: ENGLISH LANGUAGE TEACHING

CODE: GMEN5C

OBJECTIVES:

- TO DEVELOP THE KNOWLEDGE OF GRAMMAR
- TO MAKE UNDERSTAND THE MEANING OF ENGLISH PASSAGE GIVEN.
- TO ENHANCE THE WRITING SKILL LIKE LETTER WRITING
- TO ENRICH THE READING CAPABILITY
- TO GRASP AND COMPOSE POEMS, ESSAYS, ETC...

III B.A ENGLISH

SEMESTER V

SUBJECT: SOFT SKILLS

CODE: GCSB5C

OBJECTIVES:

- TO DEVELOP THE TECHNICAL SKILLS
- TO DEVELOP THE COMMUNICATIVE SKILLS
- TO ENHANCE THE INTERPERSONAL SKILLS
- TO CREATE A DESIRE FOR PROFICIENCY IN ENGLISH LANGUAGE
- TO FORMULATE THE EMPHASIS FOR CAREER DEVELOPMENT.

III B.A ENGLISH

SEMESTER VI

SUBJECT: SHAKESPEARE

CODE: GMEN61

OBJECTIVES:

- TO DEVELOP IMAGINATION AND CREATIVITY
- TO EXPLORE THE LANGUAGE OF SHAKESPEARE
- TO ENHANCE THE PROFICIENCY OF SHAKESPEARE'S WRITING TECHNIQUES
- TO EXPLORE THE DRAMATIC TECHNIQUES OF SHAKESPEARE

- TO DEVELOP THE COHERENT SHAKESPEARIAN WRITING TECHNIQUES.

III B.A ENGLISH

SEMESTER VI

SUBJECT: CONTEMPORARY LITERATURE

CODE : GMEN62

OBJECTIVES:

- TO DEVELOP THE UTILITY OF CONTEMPORARY FORMS OF CULTURE
- TO DEVELOP THE SIGNIFICANCE OF HISTORICAL, GEOGRAPHICAL AND CULTURAL CONTEXTS OF CONTEMPORARY PERIODS.
- TO DEVELOP THE ABILITY TO APPLY CRITICAL AND THEORETICAL APPROACHES.
- TO ANALYSE THE THEMES OF LITERARY TEXTS.
- TO ENGAGE THE EFFECTIVENESS OF CONVERSATION IN LITERATURE.

III B.A ENGLISH

SEMESTER VI

SUBJECT: LITERARY CRITICISM AND THEORY

CODE: GMEN63

OBJECTIVES:

- TO UNDERSTAND ABOUT WHAT IS LITERARY CRITICISM
- TO DEVELOP THE RELEVANCE OF LITERARY CRITICISM
- TO ENHANCE THE ELEMENTS OF THEORY AND CRITICISM
- TO FORMULATE THE CONCEPTS OF THEORETICAL AND PRACTICAL CRITICISM
- TO DIFFERENTIATE BETWEEN LITERATURE AND THEORETICAL CRITICISM.

III B.A ENGLISH

SEMESTER VI

SUBJECT : REGIONAL LITERATURE IN TRANSLATION

CODE : GMEN64

OBJECTIVES:

- TO ENRICH THE KNOWLEDGE OF TRANSLATION
- TO CREATE AWARENESS REGARDING THE SCOPE OF TRANSLATION
- TO DEVELOP THE THEORETICAL STANDARDS OF TRANSLATION
- TO DEVELOP THE SKILLS OF TRANSLATION
- TO EXPLORE THE NOTIONS OF STRUCTURAL AND SEMANTIC IDENTIFICATION OF TRANSLATIONS.

III B.A ENGLISH

SEMESTER VI

SUBJECT : AFRICAN LITERATURE

CODE : GMEN6A

OBJECTIVES:

- TO DEVELOP THE CULTURAL NOTIONS OF AFRICA
- TO ENHANCE THE KNOWLEDGE REGARDING THE TRIBAL CULTURES OF AFRICA
- TO DEMONSTRATE THE AFRICAN NARRATIVES OF POEM, PROSE, DRAMA, AND NOVEL
- TO EXPLORE REGARDING THE ECONOMIC AND POLITICAL STANDARDS OF AFRICA
- TO ENHANCE THE COLONIAL AND POST-COLONIAL PERIODS OF AFRICA

DEPT: B.COM (Sec-B)**Year: II Semester: IV****SUBJECT NAME: Introduction to Internet and HTML****SUBJECT CODE:JACN41****(Learning Outcome / Acquisition)**

1. Understand the architecture of the Internet and the organization and standards that make it the World Wide Web at both the underlying structure and the browser/server levels.
2. Have a comprehensive knowledge of the semantics and syntax of HTML and DHTML.
3. Understand many of the legal and ethical aspects of sharing with the public and referencing information made available to the public over the web.
4. Have a clear understanding and appreciation for clear, accurate, and relevant content for web-based publications.
5. Have hands-on experience designing and writing web-based applications.
6. Have an understanding of and appreciation for state-of-the-art web-based applications and the transitory nature of the medium and its contents

INTRODUCTION TO INTERNET AND HTML LAB**OBJECTIVES:**

1. The student should be made to:
2. Be familiar with Web page design using HTML/DHTML and style sheets
3. Be exposed to creation of user interfaces using frames and applets.
4. Learn to create dynamic web pages using server side scripting.

DEPT: B.COM (Sec-B)**Year: II Semester: IV****SUBJECT NAME: Database Management System****SUBJECT CODE:JSCN4A****(Learning Outcome / Acquisition)**

1. To expose the students to the fundamentals of Database Management Systems.
2. To make the students understand the relational model.
3. To familiarize the students with ER diagrams.
4. To expose the students to SQL.
5. To make the students to understand the fundamentals of Transaction Processing and Query Processing.
6. To familiarize the students with the different types of databases.
7. To make the students understand the Security Issues in Databases.

DEPT: B.COM (Sec-B)

Year: II Semester: IV

SUBJECT NAME: Issues in Indian Economy

SUBJECT CODE:GNEC4A

(Learning Outcome / Acquisition)

1. To study about Indian Economy.
2. Relate national income and economic welfare.
3. To know structural and development issues.
4. Difference between monetary policy and fiscal policy.

Dept: B.Com (Sec-B)

Year: II

Semester: III

Subject Name: Corel Draw

Sub Code: JACN31

(Learning Outcome /Acquisition)

1. Students will familiarize themselves with the basics of CorelDRAW, such as creating and saving documents, using fonts, resizing, rotating and moving documents and getting help.
2. They will then create a report cover that contains a page border, an image from a symbol font, a title in artistic text and paragraph text. Suggested topics for discussion include legal issues surrounding font usage, design issues and the safety of downloading “free fonts” from the Internet.
3. Students will learn to combine [vector and bitmap images](#) as they create a standard page (letter/A4) motivational poster that must include at least one photo to accompany the text.
4. Students will be introduced to the Corel® PHOTO-PAINT™ program and learn how it works with CorelDRAW. Suggested topics for discussion include how editing a photo might be deemed deceitful, digital photography techniques and career opportunities in photography.

Dept: B.Com (Sec-B)

Year: II Semester: III

Subject Name: Computer Application in Business

Sub Code: JSCN3A

(Learning Outcome /Acquisition)

1. To gain an understanding of the theories and concepts underlying e-commerce
2. To apply e-commerce theory and concepts to what e-marketers are doing in "the real world"
3. To improve familiarity with current challenges and issues in e-commerce

DEPT: B.COM (Sec-B)

Year: II Semester: III

SUBJECT NAME: Economics for competitive Exam

SUBJECT CODE:JNEC3A

(Learning Outcome / Acquisition)

1. **Sustainability** - a rate of growth which allows an increase in living standards without undue structural and environmental difficulties. 'Economic growth' will be studied later on in this book.
2. **Full employment** - where those who are able and willing to have a job can get one, given that there will be a certain amount of frictional and structural unemployment.
3. **Price stability** - when prices remain largely stable, and there is not rapid inflation or deflation. Price stability is not necessarily the same as zero inflation, but instead steady levels of low-moderate inflation are often regarded as ideal. It is worth noting that prices of some goods and services often fall as a result of productivity improvements during periods of inflation, as inflation is only a measure of *general* price levels. However, inflation is a good measure of 'price stability'. Zero inflation is often undesirable in an economy. ("Internal Balance" is used to describe a level of economic activity that results in full employment with no inflation.)
4. **External balance** - equilibrium in the Balance of payments without the use of artificial constraints. That is, exports roughly equal to imports over the long run.
5. **Equitable distribution of income and wealth** - a fair share of the national 'cake', more equitable than would be in the case of an entirely free market.
6. **Increasing productivity** - more output per unit of labour per hour. Also, since labour is but one of many inputs to produce goods and services, it could also be described as output per unit of factor inputs per hour.

Dept: B.COM (Sec-B)

Year: III Semester: VI

SUBJECT: Multimedia

Sub code: GMCN6C

(Learning Outcome /Acquisition)

1. Gain knowledge about graphics hardware devices and software used.
2. Understand the two dimensional graphics and their transformations.
3. Understand the three dimensional graphics and their transformations.
4. Appreciate illumination and color models.

5. Be familiar with understand clipping techniques.

DEPT: B.COM (Sec-B)

Year: III Semester: V

SUBJECT NAME: Application of Tally of Accounting

SUBJECT CODE:GMCN5C

(Learning Outcome / Acquisition)

1. Knowhow/Refresher of Basic Accounting concepts
2. Understanding the power and potential of Tally Accounting Software from the business perspective
3. Company Setup & Configurations
4. Charts of Accounts Setup
5. Recording Financial Transactions
6. Financial Reports Analysis
7. Charts of Inventory Setup
8. Recording Inventory Transactions
9. Inventory Reports Analysis

DEPT: B.COM (Corporate Secretaryship)

I-Year

semester: II

SUBJECT: COMPANY LAW-I & II SACR11 & SACR 21

Objectives:

1. To encourage the development of students skills in legal reasoning.
2. The explain the legal nature and significance of limited liabilities.
3. To provide students with an awareness of current policy hence and developments in company law.
4. To facilitate an appreciation of the legal nature of the relationships between company and its management.
5. Provide students with knowledge and appreciations of the major core topics in company law including in legal nature of the company as a business structure.

DEPT: B.Com (Corporate Secretaryship)

Year: III Semester: VI

SUBJECT NAME: Internship Training

SUBJECT CODE:

(Learning Outcome / Acquisition)

1. Assist the student's development of employer-valued skills such as teamwork, communications and attention to detail.
2. Enhance and/or expand the student's knowledge of a particular area(s) of industry.

3. Expose the student to professional role models or mentors who will provide the student with support in the early stages of the internship and provide an example of the behaviors expected in the intern's workplace.

DEPT: B.Com (Corporate Secretaryship)
SUBJECT: SECRETARIAL PRACTICE

II-Year

semester: III

SUB. Code:

1. Understand the nature of duties of responsibilities of secretary.
2. Develop essential skills in performing secretarial tasks.
3. Understand the forms of organization structure.
4. Develop skill in handling office machines and equipments.

Dept: B.Com (Corporate)

year: II sem :III

Subject: Office Management

SubCode:JSCO3B

(Learning out come /Acquisition)

Office management is the study of the responsibilities problem and duties of an office managers in managing and modern office from both a traditional and Computerized office system approaches is this course also includes techniques used to reduce and control office cost

DEPT: B.Com (Corporate Secretaryship)

Year: II Semester: IV

SUBJECT NAME: Corporate Finance

SUBJECT CODE:GACR41

(Learning Outcome / Acquisition)

1. Identify the key themes in corporate finance.
2. Explain the role of finance in an organization.
3. Explain and analyse the interrelationship between finance and governance.
4. Analyse the relationship between strategic decision making and corporate financing decisions.

DEPT: B.Com (Corporate Secretaryship)

Year: II Semester: IV

SUBJECT: Career Planning

SUB.CODE:

1. To provided and maintain appropriate manpower resources in the organization for offering carriers and Not jobs.
2. To increase to utilization and managerial servers within organization.

3. To provide environment for the effectiveness , efficiency and growth of its employee and motivating theme.
4. To have a stable workforce to reducing absenteeism for employee turnover.

III-Year

IV-semester

Corporate Secretaryship

Management Accounting

Objectives:

1. Assistance in planning and formulation of future policies .
2. Helps in Co-ordinating Operation.
3. Helps in motivating employees.
4. Helps in evaluating the efficiency and effectiveness of policies.
5. Helps in the interpretation of financial information.

DEPARTMENT OF COMPUTER APPLICATIONS I B.C.A

SEMESTER :I

DEPARTMENT OF COMPUTER APPLICATIONS

I B.C.A

SEMESTER :I

SUBJECT NAME :OFFICE AUTOMATION LABORATORY I

SUBJECT CODE :SACAP1

OBJECTIVES:

- To provide an in-depth training in use of Office Automation packages, internet and intranet tools, web hosting etc.
- Essential for a modern office for day to day office management.

DEPARTMENT OF COMPUTER APPLICATIONS

II B.C.A

SEMESTER :III

SUBJECT NAME : ESSENTIAL OF FINANCIAL ACCOUNTING SUBJECT

CODE :JMCA32

OBJECTIVES

- The objective of this subject is to provide students with fundamental knowledge and understanding of financial.
- Managerial accounting as well as the ability to make decisions based on accounting data.

DEPARTMENT OF COMPUTER APPLICATIONS

II B.C.A

SEMESTER :III

**SUBJECT NAME :INTRODUCTION TO ACCOUNTING
CODE :JNCO3A**

SUBJECT

OBJECTIVES

- To prepare students for jobs requiring a basic knowledge of business records and to introduce the fundamentals of accounting for students who wish to go into advanced work in this field.
- To be a hands-on learning experience.
- To read the text, listen to a limited amount of lecture, and a great deal of “doing” accounting work in class.
- Technical and procedural skills required in accounting departments of today's businesses.
- To be trained in basic accounting principles but will also become proficient in automated systems and advanced applications which require greater analysis and decision making.
- Students will work through an accounting cycle for a proprietorship, partnership, and merchandising businesses.

DEPARTMENT OF COMPUTER APPLICATIONS

II B.C.A

SEMESTER :III

**SUBJECT NAME : DESKTOP PUBLISHING LABORATORY
SUBJECT CODE :JACAP3**

OBJECTIVES:

The student should be made to:

- To understand and apply page design principles as related to desktop publishing.
- To successfully operate word processing, graphic generation, page assembly, and image scanning software.
- To understand the academic principles and practical hardware/software operations in a high enough level to be able to directly apply these skills in business and industry publications applications.

DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER :IV

**SUBJECT NAME : VISUAL BASIC
CODE :JMCA41**

SUBJECT

OBJECTIVES:

The student will use Visual Basic

- To build Windows applications using structured and object-based programming techniques.
- Students will be exposed to the following concepts and/or skills at an Introductory concepts level: Analyze program requirements, Design/develop programs with GUI interfaces

DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER :IV

**SUBJECT NAME : RESOURCE MANAGEMENT TECHNIQUES
SUBJECT CODE : JACA41**

OBJECTIVES:

The student should be made to:

- Be familiar with resource management techniques.
- Learn to solve problems in linear programming and Integer programming.
- Be exposed to CPM and PERT.

THE M.D.T HINDU COLLEGE

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DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER : IV

**SUBJECT NAME : VISUAL BASIC LABORATORY
SUBJECT CODE : JMCAP3**

OBJECTIVES:

- To understand the concepts of OOP (Object Oriented Programming).
- To develop applications using the various tools in visual programming.
- Be proficient in working with the Visual Basic environment.

DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER : IV

**SUBJECT NAME: FLASH LABORATORY
CODE: JSCA4A**

SUBJECT

OBJECTIVES:

The student should be made to:

- To develop storyboards and 2-dimensional animation including creating, importing and sequencing media elements to create multi-media presentations.
- Emphasis will be on conceptualization, creativity, and visual aesthetics.
- Various aspects of animation using a variety of 2-dimensional software.
- Developing concepts, storyboarding and production of several 2 dimensional animations will be accomplished.

DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER :V

**SUBJECT NAME : SOFTWARE PROJECT MANAGEMENT
SUBJECT CODE :JMCA5B**

OBJECTIVES:

- To outline the need for Software Project Management
- To highlight different techniques for software cost estimation and activity planning.
- Learn the design of test cases.
- Be familiar with test management and test automation techniques.
- Be exposed to test metrics and measurements.

DEPARTMENT OF COMPUTER APPLICATIONS

IIB.C.A

SEMESTER :VI

**SUBJECT NAME : SOFTWARE TESTING
CODE: GMCA64**

SUBJECT

OBJECTIVES:

The student should be made to:

- Expose the criteria for test cases.
- Learn the design of test cases.
- Be familiar with test management and test automation techniques.
- Be exposed to test metrics and measurements.

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DEPARTMENT OF COMPUTER APPLICATIONS

III B.C.A

SEMESTER :VI

**SUBJECT NAME : CYBER SECURITY
CODE:GMCA65**

SUBJECT

OBJECTIVES

The student should be made to:

- Understand the risks associated with information security
- Understand basic information technology risks & control concepts
- Understand the components security Framework and Standards
- Understand SANS Top 20 Critical Security Controls

DEPARTMENT OF COMPUTER SCIENCE

II B.Sc

SEMESTER : III

SUBJECT NAME : CONSUMER AWARENESS SUBJECT CODE :JNCO3B

OBJECTIVES

The syllabus aims to enable students to:

- Understand the importance of nutrition for long-term health
- Apply basic principles of consumer education
- Apply basic financial principles for everyday decision making and planning
- Appreciate and develop an understanding of food, nutrition and trans-cultural awareness in the global context.
- Nurture and develop critical thinking, problem-solving and creativity, a spirit of enterprise, innovation, and aesthetic awareness; to make informed and discerning food and consumer-related decisions develop positive attitudes and values for the well-being of the community (families and society).

DEPARTMENT OF COMPUTER SCIENCE

IIB.Sc SEMESTER : IV

SUBJECT NAME : HUMAN RIGHTS

SUBJECT CODE :JNCO4B

OBJECTIVES :

- To sensitize the Engineering students to various aspects of Human Rights.

ALL UG Departments

Subject: ENVIRONMENTAL STUDIES

Year: I Semester: II

Subject Code: SEVS11

Learning Outcomes

- Students are able to,
- CO1 Gain knowledge about the multidisciplinary nature of Environmental studies
- CO2 Acquire information about various types of ecosystems
- CO3 Understand the values of biodiversity and its conservation types.
- CO4 learn different types of pollution and solid waste management.
- CO5 Understand various types of social issues and the environments.

ALL UG Departments

Year: I Semester: II

Subject: VALUE BASED EDUCATION

Subject Code: SVBE21

Learning Outcomes

- Students are able to,
- CO1 Learn the social justice parameters & factors responsible.
- CO2 Gain knowledge about human rights & its principles
- CO3 Understand the causes & magnitude of social issues & communal harmony
- CO4 Describe the media education & globalized world scenario
- CO5 Explain the various values, ethics and responsibilities.

Subject name: Personality Development

Subject Code: GCSB5A

- CO 1: Understanding meaning and definition of personality
- CO 2: Knowledge of Personality concepts
- CO 3: Development of Leadership Quality
- CO 4: Skill of communities
- CO 5: Facing Interview
- Out Come: To develop Individual personality

EFFETCIVE COMMUNICATION

Semester V

SUB. CODE: (GCSB5B)

- To improve the student communicative competence in English in speaking and writing.
- Providing them with down-to-earth sensible and stimulating guidance.: carry on conversation in different communication contexts such as face to face communications, telephonic communication, viva voce interview etc.,
- To increase their ability to participate actively in group discussions and exchange ideas or attempt to reach a decision on shared problems.
- Improve their ability to read fast with better understanding.
- Students are inculcated to Prepare well-organized curriculum vitae (resume/bio-data) Project report, and Write effective formal and informal, letters applications, memos, Emails and faxes.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: 1 Certificate Course in Import and Export Management

Non Semester

SUBJECT NAME: Principles of Management

SUBJECT CODE: CIEMT 1

(Learning Outcome / Acquisition)

1. Familiarize the students with concepts and Principles of Management
2. Impart knowledge about Planning and Decision Making
3. Understand about Organizing and Principles of Organizing
4. Know about Directing and its importance
5. Learn about the role of co-ordination and control in the successful functioning of an organization

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export

Management)

Year: 1 Certificate Course in Import and Export Management

Non Semester

SUBJECT NAME: International Trade

SUBJECT CODE: CIEMT 2

(Learning Outcome / Acquisition)

1. To help the students to gain knowledge about foreign trade policy.
2. To make the students aware about the preliminaries for starting export business.
3. Understand about foreign exchange rates and export marketing
4. Know about import procedures
5. Learn about the fiscal incentives for export promotion.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export

Management)

Year: 1 Certificate Course in Import and Export Management

Non Semester

SUBJECT NAME: Project

SUBJECT CODE: CIEMP 1

(Learning Outcome / Acquisition)

(Learning Outcome / Acquisition)

1. The students must individually choose an Import and Export Firm and should submit a report about organization study.
2. This will help them to know practically the working activities of an import export firm.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export

Management)

Year: II Diploma Course in Import and Export Manangement

Non Semester

SUBJECT NAME: Foreign Exchange and Credit Management

SUBJECT CODE: DEMTT 1

(Learning Outcome / Acquisition)

1. To gain thorough knowledge about different type of foreign markets.
2. To know about the calculation of foreign exchange rates.

3. To make the students to get a clear view about foreign exchange transactions.
4. Understand about the risk involved in foreign exchange contracts.
5. To know about the various credit facilities available for export and import business.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: II Diploma Course in Import and Export Management

Non Semester

SUBJECT NAME: International Business Environment

SUBJECT CODE: DEMTT 2

(Learning Outcome / Acquisition)

1. To know about international business environment and strategic decisions in international business.
2. To help the students aware about globalization of world economy.
3. Understand about the trends and impact of world political philosophy and culture involved in international business
4. To make a clear vision about advanced international technological development in business.
5. Learn about international organizations related to business.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: II Diploma Course in Import and Export Management

Non Semester

SUBJECT NAME: Project

SUBJECT CODE: DEMTP 1

(Learning Outcome / Acquisition)

1. The students must individually choose an Import and Export Firm and should submit a report about some issues related to export and import in that organization.
2. This will help them to deal various issues rising in an import export firm.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: III Advanced Diploma Course in Import and Export Management

Non Semester

SUBJECT NAME: Import and Export Procedures

SUBJECT CODE: ADIET 1

(Learning Outcome / Acquisition)

1. To know about the basic import and export procedures.
2. To gain a clear view about the various documents needed for import and export.
3. Understand about custom clearance procedures.
4. To learn about registration process and license procedure.
5. To know about shipment procedures.

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: III Advanced Diploma Course in Import and Export Management

Non Semester

SUBJECT NAME: Exim Financing and Documentation

SUBJECT CODE: ADIET 2

(Learning Outcome / Acquisition)

1. To know about the financial assistance for shipment.
2. To study about credit schemes for small scale exporters.
3. Understand about incentives and assistance available for export.
4. To learn about negotiating documents under export.
5. To know about letter of credit and other documentation

DEPARTMENT: Commerce (Career Oriented Programme in Import and Export Management)

Year: III Advanced Diploma Course in Import and Export Management

Non Semester

SUBJECT NAME: Project

SUBJECT CODE: ADIEP 1

(Learning Outcome / Acquisition)

1. The students must individually choose an Import and Export Firm and should submit a report about some issues related to export and import in that organization.
2. This will help them to deal various issues rising in an import export firm.

**Course: Certificate course in Tourism and Travel Management
Academic Year 2014-2015**

First year- First Semester

First Semester-Principles of Tourism

- CO1 Acquire the knowledge about Tourism.
- CO2 Understood the development of tourism in India.
- CO3 Acquire the knowledge on Tourism of India.
- CO4 learnt about tourism organisations.
- CO5 Learnt about promotion of tourism.

First Semester- Travel and Travel Management

- CO1 understand about the classification of tourism.
- CO2 Understood about different travel agencies.
- CO3 Acquire the knowledge on Tourism organisations.
- CO4 Learnt about travel documentations.
- CO5 Learnt about role of technology in tourism.

**Course: Diploma course in Tourism and Travel Management
Academic Year 2015-2016**

Travel and Hospitality Management

- CO1 Acquire the knowledge about International travel organisation.
- CO2 Understood the transportation of tourism.
- CO3 Acquire the knowledge on Hospitality Management.
- CO4 learnt about tourism travel documentations.
- CO5 Learnt about tourism services, tour operators and agencies.

Tourism Marketing

- CO1 understand about tourism marketing.

- CO2 acquired knowledge on tourism products.
- CO3 Acquire the knowledge on Tourism and public relations.
- CO4 Learnt about tourism planning and development.
- CO5 Learnt about economic impact of tourism.

**Course: Advanced Diploma course in Tourism and Travel Management
Academic Year 2016-2017**

Course Objectives

Global Tourism

- CO1 Acquire the knowledge of Global Tourism.
- CO2 Understood about map reading system.
- CO3 Acquire the knowledge on European Tourism.
- CO4 learnt about tourism in South Asia.
- CO5 Learnt about future of global tourism.

Travel Agency and Tour operations

- CO1 understand about history and development of travel agency.
- CO2 acquired knowledge on functions of travel agency.
- CO3 Acquire the knowledge on Tourism packages and services.
- CO4 Learnt about visa, passport.
- CO5 Learnt about information technology in tourism.

CERTIFICATE COURSES IN TOURISM AND TRAVEL MANAGEMENT

Project:

1. Visit the important tourism places in South Tamilnadu.
2. Know about the Socio and economic importance of these tourist places.
3. Gathering the data and importance of these tourist places.
4. Studied the importance of tourism product marketing.
5. Present the above data & details in a report format.

DIPLOMA COURSE IN TOURISM AND TRAVEL MANAGEMENT

Project:

1. Students are able to know the Tourists places of Tirunelveli district.
2. Student are understood about the historical monuments of Tirunelveli district.
3. Students are understand about the Tourists guide activities.
4. Understood about the major travel agencies in Tirunelveli district.
5. Acquired knowledge on Tourist places of Tirunelveli district.

ADVANCE DIPLOMA IN TOURISM AND TRAVEL MANAGEMENT**Project**

1. Studied the importance of tourism in Tamilnadu and India.
2. Prepared for a field visit.
3. Studied the concept and uses of tourism marketing.
4. Studied various guidelines for tourism.
5. Studied the importance of Information Technology on Tourism.

Certificate course on Progressive thoughts**Paper – I****Life and Age of Periyar EVR, Dr.Ambedkar and Karlmarx Sub. Code: RCPT1**

- Co1 Understand the life of Periyar EVR
- Co2 Understand the Self-respect movement
- Co3 Knowledge about Dr.Ambedkar Life
- Co4 Ambedkar contribution to the Indian constitution
- Co5 Knowledge about life of Karlmarx and Engel's

Paper II**Thought and Movement of Periyar EVR, Dr.Ambedkar and Karlmarx Sub. Code: RCPT2**

- Co1 To understand the Periyar EVR thoughts and movements

Co2 Knowledge about the movement for abolition of priestly monopoly of Bramins

Co3 The study helps us to labour movement and Women liberation

Co4 The study explain the thought of Ambedkar ideas

Co5 Understand the ideas of Marxism

fhe;jpa rpe;jidfs;

fhe;jpabfspd; fhyKk; tho;f;ifAk; - RCGT1

cyfj; jiytHfSs; xUtUk; ,e;j Njrj;jpd; gpjh vd;W miof;fg;gLk; fhe;jpabfspd; tho;f;if
tuyhw;iw mwpar; nra;tJ

rHNthjaKk; mfpk;irAk; - RCGT2

kfhj;kh caHtjw;F fhe;jpabfs; filgpbj;j Kiwfis fw;Wf; nfhs;Sjy;

,r;rh;wpjo; %yk; rpy NjHTf;Fk;> kdpjhgpkh; mbg;gilapyhd gzfSf;Fk;> jiyik
Vw;gjw;Fk;> fhe;jpak; njhlHghd JiwfspYk; gzpGhpa Kd;Dhpik kw;Wk; tha;g;G fpilf;fpwJ.

jhs;

