

# **Syllabus for Class XII for the year 2011-12**

## **ENGLISH CORE**

### **1<sup>st</sup> Term**

#### Flamingo

1. The Last Lesson
2. Lost Spring

#### Poem

1. My Mother at Sixty six
2. An Elementary School Classroom in a slum.
3. Keeping Quiet
4. A Thing of Beauty
5. A Road Side Stand
6. Aunt Jennifer's Tigers

#### Vistas

1. The Third Level
2. The Tiger King
3. Journey to The End of The Earth

### **2<sup>nd</sup> Term**

#### Flamingo

1. Deep Water
2. The Rat Trap
3. Indigo
4. Poets & Pancakes
5. The Interview
6. Going Places

#### Vistas

1. The Enemy
2. On the Face of It
3. Should wizard Hit Mommy
4. Evans tries an O'Level
5. Memories of childhood

## **ELECTIVE ENGLISH**

- Books:
1. A Tiger for Malgudi
  2. Kaleidoscope

### **1<sup>st</sup> Term**

1. Freedom
2. Poems by Milton
3. Poems by Blake
4. Eveline
5. I Sell My Dreams
6. Chandalika
7. The Wild Swans at Coole
8. Why the Novel Matters
9. A Lecture Upon the Shadwos
10. A tiger for Malgudi

### **2<sup>nd</sup> Term**

1. On Science Fiction
2. Film Making
3. Tomorrow
4. Blood
5. Time and Time Again
6. Trees
7. Broken Images
8. Kubla Khan
9. Mark on The Wall
10. A Tiger for Malgudi

## **SOCIOLOGY**

### **1<sup>st</sup> Term**

BOOK: Social change and Development in India:

#### Colonialism and Modernisation

Chapter 1: Structural change

Chapter 2: Cultural change

#### Democracy and Rural – Urban Society

Chapter 3: The Story of Indian Democracy

Chapter 4: Change and Development in Rural Society

Chapter 5: Change and Development in Urban Society

### **2<sup>nd</sup> Term**

#### Globalisation and Change in Society

Chapter 6: Globalisation and Social change

Chapter 7: Mass Media and Communications

Chapter 8: Social Movements and also 1<sup>st</sup> term syllabus

### **3<sup>rd</sup> Term**

BOOK: Indian Society

### Demographic Understanding of Indian Society

- Chapter 1: Introducing Indian Society  
Chapter 2: The Demographic structure of the Indian society

### Social Understanding of Market

- Chapter 3: Social Institutions: Continuity and change  
Chapter 4: The market as a social Institution

### Conflict and Integration

- Chapter 5: Patterns of social inequality and exclusion  
Chapter 6: The challenges of Cultural Diversity and also 1<sup>st</sup> term and 2<sup>nd</sup> term syllabus

## **PSYCHOLOGY**

### **1<sup>ST</sup> Term**

#### Theory

1. Intelligence and aptitude
  - Theories of intelligence
  - Individual difference in intelligence
  - Culture and intelligence
  - Emotional Intelligence
  - Special abilities
  - Creativity
2. Self and Personality
  - Cognitive and behavioural aspect of self; Concept of Personality; Major approaches to the study of Personality; Assessment of Personality
3. Human strengths and Meeting life challenges.
  - Nature, types and sources of stress, Effects of stress on Psychological functioning and health; Coping with stress; Promoting Positive health and well - being
4. Psychological Disorder
  - Concepts of Abnormality and Psychological Disorders
  - Classification of Psychological Disorders
  - Factors Underlying Abnormal Behaviour
  - Major Psychological Disorders
5. Therapeutic approaches and Counseling
  - Nature and Process of Psychotherapy
  - Types of therapy; Nature and Process of Psychotherapy
6. Attitude and Social Cognition
  - Explaining Social behaviour; Nature, components & formation and change of attitude; Prejudice, discrimination and stereotypes; Impression formation; attribution & Prosocial Behaviour

Practical: Test administration, scoring, interpretation & conclusion on the following topics:

- i) Intelligence

- ii) Anxiety
- iii) Adjustment
- iv) Personality

## **2<sup>nd</sup> Term**

### Theory

1. Social influence and Group Process  
Nature and formation of Groups, Types of groups; Influence of Group on Individual Behaviour; Compliance and obedience, Co – operation and competition; Social Identity; Intergroup Conflict, Conflict Resolution Strategies
2. Environmental and Social concerns
3. Applied Psychology

- Practical: i) Administration, Scoring interpretation & conclusion  
- DAT ( Differential aptitude test )  
ii) Case Profile

## **FASHION STUDIES**

### History of Fashion:

1. Concept of Fashion, costume and apparel
2. Hypothesis of costume
3. Different uses of costume as per sociological aspect
4. Indian costume
5. Oriental war costume
6. Western war costume
7. 1<sup>st</sup> World War
8. 2<sup>nd</sup> World War
9. Between the wars
10. Movement and styles of Indian fashion from 1900 to 2000

### Garment Construction II:

1. Concept of natural fibre and manmade fibre and their advantages and disadvantages
2. Preshrinking
3. Different grains of fabric
4. Fabric cutting
5. Cutting layout
6. Cutting of unusual fabrics and prints
7. Cutting method
8. Construction of continuous placket
9. Construction of simple shirt placket
10. Construction of shirt placket with facing
11. Construction of cuff
12. Assemble of bodice
13. Assemble of shirt
14. Sleeve attachment

15. Neckline finishing with shaped facing, Bias facing and Bias strip

### Pattern Making :

1. Pattern making – definition and methods
2. Difference between Flat pattern method and draping method
3. Difference between Slopper Block and pattern
4. Definition of dart, dartintake, dartleg, grain.
5. How to take measurement from dressform
6. How to fit
7. Preperation of size chart
8. Evolution of fit / fitting methods
9. Pattern making of basic bodice Front & Back
10. Pattern making of necklines like round, V, U, Glass, Sweet heart, wide V etc
11. Dart manipulations
  - Sh to WI
  - WI to CF
  - Sh to Ah/SS point
  - princess line
12. Pattern making of Basic Skirt Front & Back
13. Skirt Variation
  - A line
  - One dart
  - Flare
14. Pattern making of basic sleeve
15. Pattern making of Peterpan Collar, Mandarin Collar.

### Elements of Fashion:

1. Fashion from concept to consumer
2. Different Fashion capitals of world
3. Haute Couture, Pret – a – Porta – Mass fashion
4. Men’s wear
5. Women’s wear
6. Kid’s wear
7. Trims of different kinds

## **GEOGRAPHY**

### **Half Yearly - Theory**

Fundamentals of Human Geography

Unit 1:

1. Human Geography – Nature & Scope

Unit II:

2. World Population – Density, Distribution and Growth
3. Population Composition
4. Human Developments

Unit III:

5. Primary Activities

6. Secondary Activities
7. Tertiary & Quaternary Activities
8. Transport & Communication
9. International Trade

Unit IV:

10. Human Settlements

### **Pre – Selection**

India : People and Economy

Unit I:

1. Population: Distribution, Density, Growth & Composition
2. Migration: Types, causes & consequences
3. Human Development

Unit II:

4. Human Settlements

Unit III:

5. Land Resources & Agriculture
6. Water Resources
7. Mineral & Energy Resources
8. Manufacturing Industries
9. Planning & Sustainable Development  
+ Half Yearly Syllabus

### **Selection**

Unit IV:

10. Transport & Communication
11. International Trade

Unit V:

12. Geographical Prospective on Selected Issues & Problem

### **Practicals**

Half Yearly

- |            |                                  |
|------------|----------------------------------|
| Chapter 1: | Data – Its Source & Compilation  |
| Chapter 2: | Data Processing                  |
| Chapter 3: | Graphical Representation of Data |

### **Pre – Selection**

- |            |  |
|------------|--|
| Chapter 4: | Use of computer in Data Processing & Mapping |
| Chapter 5: | Field Surveys                                |
| Chapter 6: | Spatial Information Technology               |

# **POLITICAL SCIENCE**

SECTION – A: Contemporary World Politics.

## **COURSE CONTENT**

UNIT – 1: Cold War Era in world Politics:

Emergency of two Power blocs after the second World War. Arenas of the Cold War, challenges to Bipolarity, India and the Cold War.

UNIT – 2: Disintegration of the 'Second World' and the collapse of Bipolarity:

New entities in World Politics:

Russia, Central Asian States and Balkan State. Introduction of democratic Politics and Capitalism in Post – Communist regimes. India's relations with Russia.

UNIT – 3: US Dominance in World Politics:

Growth of Unilateralism: Afghanistan, First Gulf War, response to 9/11 and attack on Iraq. India's relationship with the USA.

UNIT – 4: Alternative Centers of Economic and Political Power:

Rise of China as an economic power in Post – Mao era, creation and expansion of EU. ASEAN, India's changing relations with China.

UNIT – 5: SOUTH ASIA in the Post – Cold War Era:

Democratization and its rehearsals in Pakistan and Nepal, Ethnic conflict in Sri Lanka, Impact of Economic globalization on the region.

UNIT – 6: International Organisation in Unipolar World:

Restructuring and future of the UN. India's Position in the restructured UN. New International Economic Organisations.

UNIT – 7: Security in Contemporary World:

Traditional concerns of security and Politics of disarmament. Global Poverty, health and education, issues of human rights and migration.

UNIT – 8: Globalization and its Critics:

Economic, Cultural and Political manifestations. Debates on the nature of consequences of Globalization. India as an arena of globalization.

SECTION – B: Politics in India since Independence.

UNIT – 9: Era of One – Party Dominance:

First three general Elections, Nature of Congress dominance, Coalitional Nature of Congress. Major opposition Parties.

UNIT – 10: Nation – Building and its Problems:

Nehru's approach to nation – building, Legacy of Partition, Kashmir Problem, Political conflicts over language.

UNIT – 11: Politics of Planned Development:

Five year plans, Expansion of Public sector. Green Revolution.

UNIT – 12: India's External Relations:

Nehru's Foreign Policy. Sino-Indian War 1962, Indo - Pak War of 1965 and 1971, India's Nuclear Programme and new axis of World Politics.

UNIT – 13: Challenges to and Restoration of Congress system:

Political succession after Nehru electoral Upset of 1967. Congress split and reconstitution, 1971 election, Politics of 'Garibi hatao'.

UNIT – 14: Crisis of the Constitutional Order:

Search for 'Committed' bureaucracy and judiciary. Gujarat and Bihar Movement. Emergency and 1977 election.

UNIT – 15: Regional Aspirations and Conflicts:

Rise of regional Parties. Punjab Crisis and the anti – Sikh riots of 1984. Kashmir situation and North – East Problem.

UNIT – 16: Rise of New Social Movement:

Farmer's movement, Women's movement, Environmental movement, Mandal commission report.

UNIT – 17: Democratic Upsurge and Coalition Parties:

Rise of JD and the BJP. Coalition era and role of UPA and NDA Government.

UNIT – 18: Recent Issues and Challenges:

New economic policy, globalization, geo – politics and Coalition Politics of recent past as well as recent socio – economic and Political Crisis.

SYLLABUS FOR 1<sup>st</sup> term: Unit 1,2,3,4,5 and 6.

SYLLABUS FOR 2<sup>nd</sup> term: Unit 7,8,9,10,11,12,13,14 and 1<sup>st</sup> term.

SYLLABUS FOR 3<sup>rd</sup> term/selection:

Unit 15,16,17,18 and 1<sup>st</sup> term + 2<sup>nd</sup> term.

SYLLABUS FOR Class – XII (2011 – 2012)

## **HISTORY**

### **1<sup>st</sup> Term**

1. Bricks, Beads and Bones
2. Kings, Farmers and Towns
3. Kinship, Caste and Class
4. Thinkers, beliefs and buildings
5. Through the eyes of the travelers
6. Bhakti / Sufi traditions

7. In Imperial Capital – Vijaynagar
8. Peasants, Zamindars and the State

### **2<sup>nd</sup> Term**

9. Kings and Chronicles
10. Colonialism and the Countryside
11. Rebels and the Raj
12. Colonial Cities
13. Mahatma Gandhi and the nationalist movement
14. Understanding Partition
15. Framing of the Constitution

## **BENGALI**

### **1<sup>st</sup> Term**

Prose – Tota kahini, Biral, Shubho Utsav  
Poetry – Atmabilap, Atharo Bachar Boyes, Ora kaj kare  
Phonology – Samibhaban, Apinihiti, Swara Sangiti, Abhisruti, Swarabhakti  
Alankar – Anuprash , Slesh, Jamak, Upama, Samasakti  
Bagdhara, Saransha, Letter writing  
Srikanto – 1 – 6<sup>th</sup> chapter

### **2<sup>nd</sup> Term**

Prose – Tota kahini, Biral, Shubho Utsav  
Poetry – Atmabilap, Atharo Bochor Boyes, Ora Kajkare  
Phonology – Samibhaban, Apinihiti, Swara Sangiti, Abhisruti, Swarabhakti  
Alankar – Anuprash , Slesh, Jamak, Upama, Samasakti  
Bagdhara, Saransha, Letter writing  
Srikanto – 7<sup>th</sup> – last chapter

### **3<sup>rd</sup> Term**

Revision of 1<sup>st</sup> Term & 2<sup>nd</sup> Term

## **HINDI**

### **1<sup>st</sup> Term**

AAROH - Part II

( KABYA - KHAND)  
Writer

1. Atma Parichay - Harivansh Ray Bachchan  
Din Jaldi Jaldi Dhalta Hai
2. Patang - Alok Dhanwa
3. Kavita Ke Bahane - Kuwar Narayan Singh

- Baat Sidhi Thi Par  
 4. Camera Me Band Apahij - ( Raghuvir Sahay )  
 5. Saharsh swikar hai - ( Gajanam Madham Mukti Bodh )

#### GADYA KHAND

6. Bhaktin - Mahadevi Verma  
 7. Bazaar Darshan - Janendra Kumar  
 8. Kale Megha Pani De - Dharamvir Bharti  
 9. Pahalwan ki Dholak - Phaniswar Nath Ranu

#### VITAAN Part – II

1. Silver Wedding - Manohar Shyam Yoshi  
 2. Joojh - Anand Yadav

#### GRAMMAR

1. Apatith Gadyansh & Padyansh

Jansanchar  
 Essay. Letter  
 Sampadikiya  
 Report  
 Alekh  
 Feature Lekhan

### **2<sup>nd</sup> Term**

#### AAROH – Part II

( KABYA – KHAND )  
Writer

10. Usha - Shamsheer Bhadur Singh  
 11. Badal Raag - Surya Kant Tripathi Nirala  
 12. Kavitawali (Uttar Kand Se) - Tulshi Das  
     Laxman Murcha Aur Ram ka  
     Vilaap  
 13. Rubaiya , Gajal - Phirakh Gorakh Puri  
 14. Chhota Mera Khet,  
     Bagulo Ke Pankh - Uma Shankar Joshi

#### GADYA – KHAND

15. Charli Chaplin Yari Hum Sab - Vishnu Khare  
 16. Namak - Razia Sajyad Jahir  
 17. Shirish Ke Phool - Hazari Prasad Dwivedi  
 18. Sharm Vibhajan Aur Jaati Pratha - Bhimrao Ambedker  
     Meri Kalpana Ka Adarsh Sammaj

#### VITAAN – PART II

3. Ateet Me Dabe Paw - OM Jhanwi
4. Diary Ke Panne - Anne Frank

## GRAMMAR

### JANSANCHAR

1. Apateth Padyansh Aur Gadyansh
2. Essay
3. Letter
4. Sampadikya, Report, Aalekh, Feature Lekhan

## **APPLIED ART**

### **1<sup>st</sup> Term**

#### Practicals

1. Human figures sketch with Pencil/Charcoal/Pastel
2. C.D. Cover - on paper with poster colour
3. Menu Card - on paper with poster colour
4. Book Cover - on paper with poster colour
5. Cartooning - on paper with poster colour

#### Illustration with water colour

1. Family and friends in daily life
2. Professionals / Professions
3. Game and sports
4. Nature

#### Theory

1. The Rajasthani and Pahari Schools of Miniature Painting
2. The Modern Trends in Indian Art

### **2<sup>nd</sup> Term**

#### Practicals

#### Human figures sketch

#### Illustration with water colour

1. National events and celebration
2. Religious events and festivals
3. Culture – Dance, Drama, Music and Art

#### Poster

1. Excursion / Tourism
2. Cultural activities
3. Community & Nature Development
4. Ideas – Social, national and international
5. Commercial Products

## Theory

1. The Mughal and Deccan School of Miniature Painting
2. The Bengal School of Painting

First Term All

## **ECONOMICS**

### **1<sup>ST</sup> Term**

Macro Economics (Section B)

6. NI & Related Aggregates
  - Circular Flow of Income
  - Methods of calculating NI – VA Method, Expenditure Method, Income Method
  - GNP, NNP, GDP, NDP, NDI, Private – Income, Real & Nominal GDP, GDP & welfare
7. Money & Banking-  
Meaning & Functions, Central bank & its functions
8. Determination of Income & Employment.
  - Aggregate Demand & its components
  - MPC, MPS
  - Investment Multiplier
  - Full & involuntary unemployment
  - Excess & Deficient Demand
9. Govt. Budget & the Economy  
Revenue Receipt, Capital Receipt  
Revenue Expenditure, Capital Expenditure  
Revenue, Fiscal & Primary Deficit
10. Balance of Payments  
Meaning, deficit BOP, Foreign exchange rate, fixed & flexible rates & managed floating

### **Final Term**

Micro Economics (Section A)

1. Introduction
2. Consumer Equilibrium & Demand
  - Utility, MU, Law of Diminishing MU
  - Consumer's equilibrium
  - Budget line, indifference curve

- Demand schedule, curve, market demand
  - Rice elasticity of demand, shifts in dd. Curve
3. Producer Behaviour and Supply
    - Production function – TP, AP, MP
    - Returns to a factor / scale
    - Cost & Revenue – TC, TFC, TVC, AFC, AVC, MC
    - Revenue – TR, AR, MR
    - Producer’s equilibrium.
    - Supply, schedule, curve, market supply
    - Shifts in supply curve
    - Price elasticity of supply
  4. Forms of Market & Price Determination
    - Perfect Competition
    - Monopoly, Monopolistic Competition
    - Oligopoly
  5. Simple Application of Tools of Demand & Supply  
[ not to be examined ]

## **WEB TECHNOLOGY AND MULTIMEDIA**

### **1<sup>st</sup> Term**

1. MS – Access
2. Networking
3. ASP – Ch- 4 to 8

### **2<sup>nd</sup> Term**

1. ASP
2. Flash

## **ENTREPRENEURSHIP**

### **1<sup>st</sup> Term**

- |               |   |
|---------------|---|
| Chapter 1:    | Sensing Entrepreneurship opportunities                  |
| Chapter 2:    | Scanning of Environment                                 |
| Chapter 3:    | Generation of ideas                                     |
| Chapter 4:    | Product Identification                                  |
| Chapter 5 & 6 | Setting up a Small Scale Enterprise Stage 1 + 2         |
| Chapter 7:    | Business Planning – Preparation of a feasibility Report |
| Chapter 8:    | Project Report + Resource Assessment                    |
| Chapter 9:    | Mobilising Resources                                    |
| Chapter 11:   | Organising and Producing Goods & Services               |
| Chapter 24:   | Entrepreneurship Discipline & Social Responsibility     |

### **2<sup>nd</sup> Term**

1<sup>st</sup> Term syllabus +

Chapter 12:	Managing Market
Chapter 13:	Marketing functions
Chapter 14:	Marketing Mix.
Chapter 15:	Price Mix
Chapter 16:	Dist. Mix
Chapter 17:	Promotion Mix
Chapter 22:	Determination of cost
Chapter 23:	Growth & Development

### **3<sup>rd</sup> Term**

1<sup>st</sup> two terms syllabus +

Chapter 10:	General Management – Basic function
Chapter 18:	Management of Finance
Chapter 19:	Financial planning & Management
Chapter 20:	Short, Medium & Long term finance
Chapter 21:	Institutions & Sources of Finance

## **BUSINESS STUDIES**

PART A: Principles And Functions Of Management

### **1<sup>st</sup> Term**

1. Nature and Significance of Management
  - Management – concept, objectives, importance
  - Management as Science, Art, Profession
  - Levels of management
  - Management functions – planning, organizing, staffing, directing & controlling
  - Co – ordination – nature and importance
- 2 Principles of Management
  - Principles of management- concept, nature & significance
  - Fayol's principles of management
  - Taylor's Scientific principles of management & techniques
- 3 Management and Business Environment
  - Business Environment – importance
  - Dimensions of Business Environment – Economic, Social, Technological, Political and Legal
  - Economic Environment in India : Impact of Government policy changes on business & industry, with special reference to adoption of the policies of liberalization, privatization and globalization.
4. Planning
  - Concept, features, importance, limitations
  - Planning process

- Types of Plans – Objectives, Strategy, Policy, Procedures, Method, Rule, Budget, Programme

#### 5 Organising

- Concept and importance
- Steps in the process of organizing
- Structure of organization – functional & divisional
- Formal & Informal Organisation
- Delegation & Decentralisation

#### 6 Staffing

- Concept and importance of staffing
- Staffing as a part of Human Resource Management
- Staffing process – Recruitment – meaning & sources – Selection – process
- Training & development – concept, importance  
- Methods of Training

### **2<sup>nd</sup> Term**

#### 7. Directing

- Concept and importance
- Elements of Directing – Supervision – concept & role
  - Motivation – concept & Maslow's Theory
  - financial & non – financial incentives
  - Leadership – Concept & qualities of a good leader
  - Communication – concept, formal, informal, barriers

#### 8. Controlling

- Concept and importance
- Relationship between planning and controlling
- Steps in the process of control
- Techniques of controlling- budgetary control

### PART B: Business Finance And Marketing

#### 9. Financial Management

- Concept, importance, objectives
- Factors affecting Financial Decisions
- Financial planning : concept and importance
- Capital Structure: concept and factors affecting its requirement
- Fixed and working capital – concept and factors affecting its requirements

#### 10. Financial markets

- Concept of Financial Market – Money Market and its instruments
- Capital market and types – primary and secondary markets
- Distinction between capital market & money market
- Stock exchange – functions, trading procedure; NSEI, OCEI
- SEBI – objectives & Functions

#### 11. Marketing Management

- Marketing – meaning, function & role, marketing & selling

- Marketing management philosophies
- Marketing mix – elements
  - Product – nature, classification, branding, labeling and packaging
  - Price – Factors determining fixation of price
  - Physical Distribution: Elements, Channels: types function, choice of channels
    - Promotion – Elements of promotion mix, Advertising – role, limitations, objections against advertising. Personal selling – concept, importance, Sales promotion – merits limitation, methods. Publicity- concept & role

## 12. Consumer Protection

- Importance of consumer protection
- Consumer rights
- Consumer responsibilities
- Ways and means of consumer protection, Consumer awareness & legal redressal with reference to CPA
- Role of consumer organizations & NGOs

## ACCOUNTANCY

PART – A Accounting for Not – for – Profit organizations, Partnership Firms and Companies

### 1<sup>st</sup> Term

1. Accounting for Not – for – Profit Organisations ( 10 )
  - Meaning and features of Not – for – Profit organizations
  - Meaning and features of Fund based accounting
  - Receipts and Payments Account
  - Preparation of Income & Expenditure Accounts and Balance Sheet from Receipt & Payment account and addl. Info
2. Accounting for Partnership firms ( 5 )
  - Nature of partnership firm: Partnership Deed – meaning, importance
  - Partner’s Capital Accounts: Fixed vs Fluctuating Capital, Division of Profit among partners, P/L Appropriation- A/C including past adjustments
3. Reconstruction of Partnership ( 20 )
  - Changes in Profit Sharing Ratio among the existing partners – Sacrificing Ratio & Gaining Ratio
  - Accounting for Revaluation of Assets and Liabilities and distribution of reserves & Accumulated Profits
  - Goodwill – Nature, Factors affecting and methods of valuation, Average profit, Super profit & Capitalisation methods
  - Admission of a partner: Effect of Admission of Partner, Change in Profit Sharing Ratio, Accounting treatment of GW ( as per AS 10 ), Revaluation of Assets & Liabilities, Adjustment of Capitals
  - Retirement / Death of a Partner: Change in PSR, Accounting treatments of GW, Revaluation of Assets & Liabilities, Adjustment of Capitals
  - Retirement / Death of a Partner: Change in PSR, Accounting treatment of GW, Revaluation of Assets & Liabilities; Adjustment. of Capital

- Dissolution of partnership firm

## **2<sup>nd</sup> Term**

4. Accounting for Share Capital and Debenture ( 25 )
- Share Capital : Meaning & Types
  - Accounting for share capital : Issue and Allotment of Equity & Preferences Shares; Public subscription of shares; over & under subscription; issue at par, premium and discount; calls in advance, calls in arrears, issue of shares for consideration other than cash. Meaning of private placement of shares and employee stock option plan
  - Forfeiture of shares : accounting treatment, reissue of forfeited shares
  - Presentation of Share Capital in company's B/S
  - Issue of Debentures at par & premium  
Issue of Debenture as co-lateral security  
Issue of Debenture for consideration other than cash
  - Redemption of Debentures  
Sources – out of profits – debenture redemption reserve; out of capital  
– method : Lumpsum payment, draw of lots, purchasing the open market and conversion ( exclude cum-int & ex-interest)
- PART - B: Financial Statement Analysis

5. Analysis of Financial Analysis (12)
- Financial statements of a company: Balance Sheet in prescribed form with major headings
  - Financial statement analysis: Meaning, Significance Limitations
  - Tools: Comparative Statements & Common Size Statement
  - Accounting Ratios: Meaning & objectives, Types  
i) Liquidity ii) Solvency iii) Activity iv) Profitability

6. Cash Flow Statement:

- Meaning and objectives, Preparation, Adjustments related to depreciation, dividend and tax, sale & purchase of non current assets (as per revised standard by ICAI AS-3 )

7. Project work in Accounting – File ( 20 )
- Written work
  - Viva

## **MATHEMATICS**

### **1<sup>st</sup> Term**

1. Relations and Functions, Binary Operation
2. Inverse Trigonometric function
3. Matrices
4. Determinants
5. Adjoint & Inverse of a matrix
6. System of Linear Equations
7. Continuity and Differentiability
8. Differentiation
9. Application of Derivatives
10. Probability – Conditional probability
  - Bays theorem and its application
11. Indefinite Integrals
12. Methods of Integration

### **2<sup>nd</sup> Term**

1. Some special Integrals
2. Integration using partial fractions
3. Definite Integration
4. Area of Bounded Regions
5. Differential equations
6. Vector Algebra
7. 3 – Dimensional geometry
8. Probability – Probability Distribution
  - Binomial Distribution
9. Linear Programming

## **CHEMISTRY**

### **FIRST TERM SYLLABUS:**

#### 1: CHEMICAL KINETICS:

- Reaction rate – average & instantaneous.
- Factors influencing the rates of chemical reactions.
- Rate equation, order & Molecularity – Distinction between Order & Molecularity.
- Integrated rate equation for zero and first order reactions.
- Examples of zero & first order reactions.
- Determination of order of Reaction.
- Temperature dependence of the rate of reaction – Concept of Activation Energy Arrhenius equation.
- Collision Theory.
- Effect of Catalyst on Reaction Rate.

#### 2: SOLUTIONS:

- Types of Solutions.
- Expressing Concentration of solutions.
- Solubility of Gas in Liquids – Henry's Law.

- Raoult's Law.
- Ideal & Non – ideal solution.
- Colligative properties & determination Molar mass.
- Abnormal Colligative properties.

### 3: ELECTROCHEMISTRY:

- Electronic Concept of Oxidation and Reduction.
- Electrochemical Cells & Electrolytic Cells.
- Electrode Potential.
- Nernst equation.
- Relation between  $\Delta G$ ,  $E^\circ$  & equilibrium constant.
- Electrolysis and products of electrolysis.
- Quantitative aspect electrolysis – Faraday's Laws of Electrolysis.
- Conductance of Electrolytic Solution.
- Conductivity, Molar Conductivity & its variation with concentration.
- Kohlrausch's Law.
- Commercial Cells.
- Fuel Cells.
- Corrosion.

### 4: SURFACE CHEMISTRY:

- Adsorption.
- Absorption.
- Types of Adsorption.
- Adsorption Isotherms & Isobars.
- Catalysis, activity & Selectivity of Catalyst.
- Homogeneous and Heterogeneous Catalysis
- Enzyme Catalysis.
- Zeolites & shape selective Catalysis.
- Mechanism of Heterogeneous Catalysis.
- Some important industrial Catalyzed Processes.
- Colloids – classification, preparation, properties & application.
- Coagulation & Peptisation.
- Emulsion.

### 5: HALOALKANES & HALOARENES:

- Classification & Nomenclature.
- Method (General) of Preparation.
- Physical properties.
- Chemical properties.
- Stereochemistry.
- $S_N1$  &  $S_N2$  reaction – Mechanism.
- Polyhalogen Compounds.

### 6: ALCOHOLS, PHENOLS & ETHERS:

- Classification & Nomenclature.
- Method (Gen) of preparation of alcohols, phenol & ethers.
- Physical & Chemical properties of alcohols, phenols & ether.

### 7: ALDEHYDES & KETONES:

- Nomenclature.

- Method of preparation.
- Physical & Chemical properties of Aldehydes & Ketones.
- Distinction between Aldehydes & Ketones.
- Some important (commercially) carbonyl compounds.

8: THE P – BLOCK ELEMENTS:

Gr 15, Gr 16, Gr 17, Gr 18 Elements & their Compounds.

**SECOND TERM SYLLABUS:**

1: CARBOXYLIC ACID:

- Nomenclature.
- Method of preparation of carboxylic acids.
- Physical properties of carboxylic acids.
- Acidity of carboxylic acids.
- Chemical properties of carboxylic acids.
- Some commercially useful acids.
- Distinction between carboxylic acid & phenols.

2: ORGANIC COMPOUNDS CONTAINING NITROGEN:

- Structure, classification and nomenclature of amines.
- Method of preparation of amines.
- Basic nature of amines.
- Chemical properties.
- Test of amines.
- Uses of amines.
- Separation of 1°, 2° & 3° amines.
- Diazonium salt.

3: POLYMERS:

- Classification of Polymers.
- Addition & Condensation of Polymers.
- Rubber.
- Biopolymer and Biodegradable polymers.

4: SOLID STATE:

- Crystalline & Amorphous solids.
- Classification of Crystalline solids.
- Crystal lattices & Unit Cells.
- Types of Unit Cells.
- Calculation of number of points (particles/atoms) in a Unit Cell.
- Closed packed structures.
- Tetrahedral and octahedral voids.
- Formula of Compounds.
- Packing efficiency.
- Calculation Involving Unit Cell dimensions.
- Defects of solid.
- Band Theory.
- Electrical & Magnetic properties.

5: d & f – block ELEMENTS:

- General trends.
- $K_2Cr_2O_7$  &  $KMnO_4$  – Preparation, Reaction & Structure.
- Lanthanoids & Actinoids.

6: GENERAL PRINCIPLES & PROCESSES OF ISOLATION OF ELEMENTS:

- Extraction – Steps. Thermodynamic Principle of Metallurgy.
- Ellingham Diagram & application.

7: COORDINATION COMPOUNDS:

- Werner's Theory. Isomerism.
- Nomenclature.
- VBT & CFT.
- Bonding in Metal Carbonyls.
- Stability of Coordination Compounds.
- Importance & application of Coordination Compounds.

8: BIOMOLECULES:

- Carbohydrate.
- Amino acids & Protein.
- Enzymes.
- Nucleic acid.
- Vitamins.

9: CHEMISTRY IN EVERYDAY LIFE:

- Chemicals in Medicine.
- Chemicals in Food.
- Cleansing agent – Soaps and Detergents.

## **PHYSICS**

### **HALF YEARLY**

1. Electrostatics
2. Current Electricity
3. Optics
4. Electromagnetic Waves

### **PRE – SELECTION**

1. Magnetic Effect Of Current & Magnetism
2. Electromagnetic Induction & A.C.
3. Dual Nature Of Matter
4. Atoms & Nuclei
5. Electronic Devices + Including Half Yearly

### **SELECTION**

1. Syllabus of Half-Yearly
2. Syllabus of Pre Selection
3. Communication Systems

## **COMPUTER SCIENCE**

### **1<sup>st</sup> Term**

1. C++ Revision tour
2. Object Oriented Programming
3. Function Overloading
4. Classes and Objects
5. Constructors and Destructors
6. Inheritance : Extending classes
7. Data File Handling
8. Pointers

### **2<sup>nd</sup> Term**

1. Arrays
2. Linked lists, Stacks and Queues
3. Database Concepts
4. Structured Query language
5. Boolean Algebra
6. Communication and Network Concepts

### **Final Term**

Revision of 1<sup>st</sup> Term and 2<sup>nd</sup> Term

## **BIOTECHNOLOGY**

### **1<sup>st</sup> Term**

1. Protein Structure and Function
2. Recombinant DNA Technology (RDT)
3. Plant Cell Culture

### **2<sup>nd</sup> Term**

1. Genomics and Proteomics
2. Animal Cell Culture
3. Bacterial Cell Culture

## **BIOLOGY**

### **1<sup>st</sup> Term**

1. Reproduction in organism
2. Sexual reproduction in flowering plants
3. Sexual reproduction in human
4. Heredity and variation
5. Molecular Basis of Inheritance
6. Origin of life, Evolution
7. Health and diseases
8. Improvement in food production
9. Microbes in human welfare
10. Principles and process of biotechnology

### **2<sup>nd</sup> Term**

- 1<sup>st</sup> Term syllabus +
11. Application of biotechnology
  12. Organisms and environment
  13. Ecosystems
  14. Biodiversity and its conservation
  15. Environmental issues

## **GENERAL COMPUTER**

### **1<sup>st</sup> Term**

'Visual Basic' ( Basic concepts up to form designing )

### **2<sup>nd</sup> Term**

'Visual Basic' ( Form designing with codes and programs )