The Bhusawal People's Charitable Sanstha's

Dadasaheb Devidas Namdeo Bhole College, Bhusawal

DEPARTMENT OF ENGLISH

B. A. (English)

Programme Outcome (CO):

After successfully completing B. A. (English) Programme students will be able to:

PO1: Develop various communication skills such as Reading, Listening, Speaking, etc., which will help in expressing ideas and views clearly and effectively.

PO2: It will further help the students to acquire jobs in BPO where it requires correct pronunciation and fluency of English.

Course Outcomes (PO)

After successfully completing the course (Compulsory English) students will be able to:

FYBA-Compulsory English:

CO1: Express themselves in oral and written communicative situations.

CO2: Use the values learnt through literary works.

FYBA-Optional English:

CO1: Develop the comprehensive ability.

CO2: Inculcation of moral human values among the students.

SYBA- Compulsory English:

CO1: The students' literary tendencies are developed.

CO2: The students could express themselves in oral and written communicative situations.

CO3: The students could improve vocabulary.

CO4: The students are able to use English effectively in formal and informal situations of life.

SYBA: General Paper I

CO1: The students are able to appreciate literature critically.

CO2: The students could use their creative and critical faculties of mind in real life situations.

CO3: The learners are able to apply the science of pronunciation and oral form of English. language.

CO4: The students use literature to develop their social and moral sense in life.

SYBA: Special Paper I

CO1: The students learn to correlate literature to socio-political conditions of its time

CO2: The students are able to use their creative and critical faculties of mind in real life situations.

CO3: The learners could implement the values of literature in life.

SYBA: Special Paper II

CO1: Students could learn the Language through literature

CO2: The syllabus can implement the values of literature in life

CO3: Students can know the culture of the times

TYBA Compulsory English

CO1: The students will understand the basic concept of literary genre, poem, prose and stories.

CO2: Will help the students to develop literary abilities

CO3: Will help and develop the communicative skills of the students**.**

TYBA General Paper III (G3):

CO1: The students will be able to learn the origin of drama and dramatic art.

CO2: The students can learn the aspects and genres of drama.

TYBA Special Paper III (S3):

CO1: The students can develop the critical understanding literature

CO2: The students are exposed to Indian writing in English and American literature

CO3: The students are exposed to social, political and cultural background.

TYBA Special Paper IV (S4):

CO1: The students understand the properties and functions of language.

CO2: Inculcation of phonological competence among students

CO3: The students are acquainted with English grammatical forms and functions

CO4: The students are acquainted with morphological concepts and processes.

CO5: The students are acquainted with the basic concepts in syntactic and semantic levels of language.

Programme Specific Outcome (PSO):

On completion of **B.A (English)**, students are able to:

PSO1: Use correct English in oral as well as written form.

PSO2: Inculcate of human values for one's transformation of behaviour.

PSO3: interpret the literary works by critical analysis.

PSO4: Compare literary works of the great philosophers using their logic and literary capacity.

DEPARTMENT OF HINDI

B. A. (Hindi)

Programme Outcomes

After successfully completing **B.A. (Hindi)** Programme students will be able to:

- Where use National language, Literature creativity, critical thinking, analysis and research skills in Hindi Language.
- Work effectively in Rashtrabhabha Hindi individually, as member of team as well as lead the team.
- Discuss and development our Hindi Language for using in different sector etc. Bank, Railway, Ministry of State and Central Government.
- Well develop Hindi communication for the Jobs.
- Gain the knowledge about Hindi Literature for Research work in future, Prepare for NET/SET Examination.
- Jobs Available in B. A. (Hindi) : Minstry of Defence, Railways, Banking sector, Translator, Rajbhasha Adikari, Hindi Officer in any bank, work as a clerk, officer etc.

Programme Specific Outcomes

After successfully completing **B. A. (Hindi)** Programme students will

- Apply knowledge of Communication in Pure Hindi for various research activities.
- Develop problem-solving abilities using Research and Pure Hindi using in community.
- Develop the Hindi language and literature for better life.
- Understand the Ability to principles and development of research methodologies of Hindi Literature.

Course Outcome

F.Y.B.A. (Hindi)

Course (DSC Hin A-1): Hindi Kahani

After successfully completing this course students will able to

- Develop the comprehensive ability
- Inculcate moral and human values within themselves.
- The course will introduce that basic form of literature to the students
- The course will develop the liking of reading in the students.
- The course will inspire students to develop their creative ability.
- Consequently, the course will develop reading skill and creative and expressive ability of the students.
- Understand the basic forms of story writing.

F.Y.B.A. (Hindi)

Course (DSC HIN A-2) : Hindi Kavita

After successfully completing this course students will able to

- Understand the basic forms of poetry.
- Inculcate moral and human values within themselves.
- Understand the Hindi poem in past & future.
- Development of communication skill.
- Gain Knowledge of Hindi language and literature.

S.Y.B.A (Hindi) Hindi Samanya

Course (HIN-231A) : Katha Setu (G 3)

After successfully completing this course students will able to

- Understand the types of Hindi Short Story Writing
- Develop interest in literature and Short Stories.
- Inculcate moral and human values within themselves.

- Introduce of students for synonyms and opposite words.
- Inculcate moral and human values within themselves.
- Develop in the student of arts Expansion.

S.Y.B.A (Hindi) Hindi Samanya

Course (HIN-241A): Kurushetra (Khand kavya) G-4

After successfully completing this course students will able to

- To introduce of Khandkavya Genre (vidha).
- Develop of letter writing in the students.
- To develop in the student pure writing (shudh lekhan).
- Develop literary tendencies.

S.Y.B.A (Hindi) Hindi Special (S-I)

Course (HIN-232) : Kavyashastra (S-I)

After successfully completing this course students will able to

- Know Indian Poetry structure in ancient and modern era.
- Know the importance of criticism.
- Increase vision regarding literary value.
- Know the concept and process of literature.

S.Y.B.A (Hindi) Hindi Special (S-III)

Course (HIN-242) : Kavyashastra (S III)

After successfully completing this course students will able to

- Know Indian Poetry structure in ancient and modern era.
- Know the Gadya Vidha ke vividh ayam.
- Introduction of the Shabd Shakti.
- Introduction of the Chhand and Ras.

- To develop the art of Criticism.

S.Y.B.A (Hindi) Hindi Special (S-II)

Course (HIN-232) : Hindi Upanyas (S-II)

After successfully completing this course students will able to

- Know Indian fiction structure in ancient and modern era.
- Emotions create from Fiction in the students.
- Inculcate moral and human values within themselves.
- Increase vision regarding literary value.

S.Y.B.A (Hindi) Hindi Special (S-IV)

Course (HIN-242) : Natak Vidha – Kabira Khada Bajar Me (S-IV)

After successfully completing this course students will able to

- Know Indian Drama structure in ancient and modern era.
- Know the types of Dramas.
- Introduction of the Drama Kabira khada bajar me.
- Inculcate moral and human values within themselves.
- Increase vision regarding literary value.

T.Y.B.A. (Hindi)

Course (HIN-351 A) : Hindi Samanya (G-3) I

T.Y.B.A : Ekank Parimal

After completing the course student will be able to

- Introduce to the minor genres as One Act Play.
- Use literature to develop their social and moral sense in life.
- Develop interest in literature and One Act Play.
- Inculcate moral and human values within themselves.

- Introduce to students - Paribhashik Shabdawali.
- Introduce to students : Anek shabdo ke liye ek shabd.

T.Y.B.A. (Hindi)

Course (HIN-361 A) : Hindi Samanya (G-3) II

T.Y.B.A : Nibandh Manjri

After completing the course student will be able to

- Introduce to the minor genres as Essay and Hindi Prose.
- Study Grammer which acquainted them to the correct usage language.
- Develop interest in literature and Essay.
- Inculcate moral and human values within themselves.
- Develop student - How to write Essay.
- Introduce to students : Hindi Nabandh Aur Rachana.

T.Y.B.A. (Hindi)

Course (HIN-352) : Hindi Sahitya ka Itihas (S-3) I

After completing the course student will be able to

- Knowledge of Hindi Sahitya ka Itihas from Adikal to Ritikal.
- Use literature to develop their social and moral sense in life.
- Inculcate moral and human values within themselves.
- Introduce to students – Bhartiya sant Parampara.
- Study the historical development of Hindi Literature.
- Know the various literary form in same period.

T.Y.B.A. (Hindi)

Course (HIN-362) : Hindi Sahitya ka Itihas (S-3) II

After completing the course student will be able to

- Knowledge of Hindi Sahitya ka Itihas – Adunik Kal 1975 tak.

- Know the brief literature in same period.
- Use literature to develop their social and moral sense in life.
- Introduce to students – Adhunik Kal ke sahityik.
- Study the historical development of Hindi Literature.
- Know the various literary form in same period.

T.Y.B.A. (Hindi)

Course (HIN-353) : Bhasha Vigyan Tatha Rashtrabhasha Andolan ka Itihas (S-4) I

After completing the course student will be able to

- Inculcation of phonological competence among students.
- Study the various Dialects of Hindi.
- Get acquainted with Hindi grammatical forms and functions.
- Get acquainted with morphological concepts and process.
- Get acquainted with the basic concepts in syntactic and semantic levels of Hindi Language.

T.Y.B.A. (Hindi)

Course (HIN-363) : Bhasha Vigyan Tatha Rashtrabhasha Andolan ka Itihas (S-4) II

After completing the course student will be able to

- Inculcation of phonological competence among students.
- Know the importance of language in human life.
- Know the various methods to the study of language.
- Understand the communication process and method.
- Get acquainted with morphological concepts and process.
- Get acquainted with the basic concepts in syntactic and semantic levels of Hindi Language.

DEPARTMENT OF ECONOMICS
B. A.
Course Outcomes

S. Y. B. A. (Advanced Macro Economics)
Discipline Specific Elective DSE 1 (233A) Sem-III

After successfully completing this course, students will be able to:

- CO1: Define the Macro Economics, Nature of Macro Economics, National Income, GDP, NDP, NNP, GNP and Circular flow in income Per capita income, and measurement of National Income

- CO2: Explain the Say's Law of market, Classical Theory and Criticise the Classical Theory Aggregate Demand and aggregate supply, under employment equilibrium;

- CO3: explain the Consumption function, MPC, APC, MPS and APS, psychological law, importance of saving and investment, Multiplier and accelerator, rate of interest;

S. Y. B. A. (Advanced Macro Economics)
Discipline Specific Elective DSE 1 (243A) Sem-IV

After successfully completing this course, students will be able to:

- CO1: Explain Meaning & nature of money supply, credit creation &credit Multiplier, Role of Central Bank, SLR. PLR, Repo rate, NPA;

- CO2: Explain the trade cycle, Inflation, Demand pull inflation, Cost push inflation, Effects of inflation and Stagflation;

- CO3: Explain macro-economic policies, Supply side economics and Philips Curve, Laffer curve

T. Y. B. A. (Indian Economy since-1980 III)

(ECO 351) Sem-V

After successfully completing this course, students will be able to:

- CO1: Explain the Indian Financial System, money market, capital market, reform of capital market, SEBI;
- CO2: Explain the Progress of banking, commercial bank, RBI, IFCI and IDBI;
- CO3: Explain the Foreign trade, balance of payment, convertibility of rupee;
- CO4: Define the concept of LPG, MNC, WTO, IMF, World Bank;

T. Y. B. A. (Indian Economy since-1980 III)
(ECO 361) Sem-VI

After successfully completing this course, students will be able to:

- CO1: Explain the Federal finance in India, finance and planning commission, 13^{th} finance commission
- CO2: Explain the Indian Tax system, Tax revenue of State and Center, problem of black money;
- CO4: Explain the public expenditure, trends in public expenditure, effects if public expenditure
- CO4: Define the concept of public debt and deficit finance, effects of deficit finance

T. Y. B. A. (Public Finance and Policies-I**)**
(ECO 352A) Sem-V
After successfully completing this course, students will be able to:

- CO1: Explain the Nature and scope of public finance, differentiate public and private finance

- CO2: Explain the source of public revenue, types of tax and taxable capacity;

- CO3: define the concept of impact, incidence and shifting of tax, effects of taxation;

- CO4: Explain the government intervention, need, tools and cost of government intervention;

T. Y. B. A. (Public Finance and Policies-I**)**
(ECO 362A) Sem-VI
After successfully completing this course, students will be able to:

- CO4: Explain the public expenditure, trends in public expenditure, effects if public expenditure

- CO2: Explain the public debt, sources of public debt, burden and role of public debt in economy;

- CO3: define the concept fiscal policy, instrument of fiscal policy, classical and modern fiscal policy and role of fiscal policy in developing countries;

- CO4: Explain the budget and deficit finance, roll of budget in economy development, deference between them, and roll of deficit financing;

Programme Outcome

After successfully completing BA (Economics special) and B Com (General)

PO1- Increase rational outlook among students about the economic matters happens around their surroundings.

PO2- Aware the students to economic environment prevail in the Economic System.

PO3- Students understanding the various issue of the Indian economy.

PO4- Students got knowledge of Micro Economics, Macro Economics concept and theories.

Programme Specific Outcomes

After successfully completing BA (Economics special) and B Com (General)

PSO1- Students understood the Theory of Consumer Behaviour and it apply in the market

PSO2- Students acquaint positive knowledge of Economic concept and theories it implements to practical life.

PSO3- Students update about new changes brought in Indian Economy.

Course Outcomes

F.Y.B.A. (Principles of Micro Economics) Eco-6-101(A)

After successfully completing this course, students will able to:

Unit 1- Introduction to Micro Economics and Theory of Demand and Supply.

In this unit introduction to Micro Economics, theory of Choice and Demand, Theory of Supply, Market equilibrium, prices.

Unit 2– Consumer Theory

In this unit students get acquainted consumer behaviour theory, Budget line, various utility approach

Unit 3- Production and Costs Theory

In this unit students get detailed knowledge about production, production function, scale of economics and diseconomies, various short run and long run cost and cost curve.

F.Y.B.A. (Principles of Micro Economics) Eco-6-201(A)

After successfully completing this course, students will able to:

Unit 1- Revenue of Firm and Firm Equilibrium

In this unit students get knowledge about, various revenue in competition market, Equilibrium Firm, Industry in competition market

Unit 2- Equilibrium of Firm and Industry under monopoly and Imperfect Market

In this unit students get detailed knowledge about long term, short term equilibrium of Firm and Industry in monopoly and imperfect competition market

Unit 3- Factor Pricing, Market Failure

In this unit students get knowledge about, modern theory of income distribution, various rent concept, various wages, interest, profit concepts and theories, government intervention in economy, its effect, and cost of government intervention.

S.Y.B.A. Advanced Micro Economics Eco-232

After successfully completing this course, students will able to:

Unit 1- Introduction

Students got knowledge about meaning, scope, nature of Micro Economics, basic economic problems of economy.

Unit 2- The Tools Theoretical Analysis

, use various tools in Micro Economics, Linear and Non-linear function, variable.

Unit 3- Consumer Behaviour

In this unit students got detailed knowledge about Marginal Utility and Demand in different curve analysis of Demand, Price Line, Consumer Equilibrium.

Unit 4- Theories of Production and Cost

Students got knowledge about various cost concepts, law of variable proportion, U-Shaped and L-Shaped cost curve

S.Y.B.A. Advanced Micro Economics Eco-242

After successfully completing this course, students will able to:

Unit 1- Market Forms and Equilibriums I

Students got knowledge about short run and long run equilibrium of Firm and Industry Imperfect Competition, Price Discrimination, effect and types of Price Discrimination and Dumping.

Unit 2- Market Forms and Equilibriums II

Students got detailed knowledge about concept of selling cost, product differentiation, short run, long run equilibrium of firm, group under monopolistic competition.

Unit 3- Factor Pricing I

In this unit students got detailed knowledge about Marginal Productivity, Theory of Distribution, Rent, Usages and their related theories

Unit 4- Factor Pricing II

In this unit students got detailed knowledge about Loanable Funds Theory of Interest, Liquidity Preference Theory, Risk and Uncertainty, Innovation Theory of Profit.

S.Y.B.A. Indian Economy since 1980 I Eco 231

After successfully completing this course, students will able to:

Unit 1- Nature of Indian Economy

Students got detailed knowledge about Indian Economy, Mixed Economy, problems of deforestation, pollution, drinking water, LPG and structural change in Economy.

Unit 2- Human Resources and Development

Students got detailed knowledge about Population, Indicators of Human Development, National Population Policy

Unit 3- Infrastructure and Development

Students got knowledge about Energy Sources and Crisis, Types of Transport, Irrigation Sources and Problems.

Unit 4- Agriculture and Indian Economy

Students got knowledge about Low Productivity causes and measures, Agricultural Finance, Agricultural Marketing, Problem of Farmer suicide

S.Y.B.A. Indian Economy since 1980 II Eco 241

After successfully completing this course, students will able to:

Unit 1- Industrial Sector

Students got knowledge about Indian Industrial Sector, Role and Problems of Industrial Sector and Public Sector, Industrial Dispute and Measures, New Industrial Policy 1991

Unit 2- Co-operative Sector in Economy

Students got knowledge about Co-operative Feature, Co-operative Banking Structure, Co-operative Sugar Industries, Defect in Co-operative System,

Unit 3- Planning in India

Students got detailed knowledge about Planning, Strategies of Planning, Achievements and Failure, XII th Five Year Plan Objectives and Allocation.

Unit 4- Recent Structural Changes in Economy

Students got detailed knowledge about SEZ, Disinvestment Policy, Direct Cash Transfer, Food Security Issue

T.Y.B.A. International Trade and Practices Eco-353(A)

After successfully completing this course, students will able to:

Unit 1- International Trade and Trade Theories

In this unit students understood the various issue about International Economics, Regional and International Trade, Economic Development and International Trade, Heckscher-ohlin Theory of Trade

Unit 2- Gains from Trade and Trade Policy

This unit students got knowledge about Terms of Trade, Gains from Trade, Free Policy, Protection Policy, Tariffs Classification, Import Quotas.

Unit 3- Balance of Trade and Balance of Payments

Students got detailed knowledge about Balance of Trade and Balance of Payment, Components of Balance of Payment, Equilibrium and Dis-equilibrium of Balance of Payment, Cause of Dis-equilibrium and measures on it.

Unit 4- Exchange Rate and Control of Exchange Rate

Students got knowledge about Exchange Rate, Determinant of Exchange Rate, Purchasing Power Parity Theory, Fix, Floating, Flexible Exchange Rate its merit and demerits, Exchange Control Method

T.Y.B.A. International Trade and Practices Eco-363(A)

After successfully completing this course, students will able to:

Unit 1- International Capital Movement and Multinational Companies

Students got knowledge about International Capital Movement, Foreign Institutional Investment, FDI's Determinants, Advantages and Disadvantages, MNC's Role, Advantages, Disadvantages

Unit 2- International Institutions and Regional Economic Cooperation

In this unit students got knowledge about IMF, World Bank, WTO, ASEAN, SAARC, BRICS Currency

Unit 3- Devaluation and Convertibility of Rupee

In this unit students got knowledge about Devaluation of Rupee, Causes and Effects, Convertibility of Indian Rupee

Unit 4- Euro Currency

In this unit students got knowledge about Euro Currency Market, origin, growth and features.

F.Y. B. Com. Principles and Practices of Banking 107(A)

After successfully completing this course, students will able to:

Unit 1- Money, Finance and Banking

Student got basic knowledge about importance and functions of Money, Circular Flow of Money in Economy, Role of Banking and Non-Banking Financial Institution

Unit 2- Banking Meaning, Functions and Classification

Student got basic knowledge about Meaning, Evolution of Banking, Function and Services of Bank

Unit 3- Classification and Types of Bank

Student got basic knowledge about Classification Bank, Merchant Banking, E-Banking, online Banking

Unit 4- Payment and Settlement in India

Student got basic knowledge about Evolution of Payment System in India, ATM- Operation and Development

Unit 5- Bankers, Customers and Banking Operations I

Student got basic knowledge about Types of Account, KYC Norms and importance, Types of Customers

Unit 6- Bankers, Customers and Banking Operations II

Student got basic knowledge about Types of Cheques and its operation in Bank, Types of various credit facilities

F.Y. B. Com. Principles and Practices of Banking 207(A)

After successfully completing this course, students will able to:

Unit 1- Multiple Credit Creation by Commercial Bank

Student got basic knowledge about Balance Sheet of Bank, Credit Creation by Commercial Bank, Process, Deposit Multiplier

Unit 2- Principles of Sound Banking

Student got basic knowledge about Meaning of Sound Banking, Liquidity and Profitability.

Unit 3- The Financial and Economic Stability of Banking System

Student got basic knowledge about Meaning and importance of Financial Stability, Concept of Capital Adequacy, NPA Concept

Unit 4- Central Banking

Student got basic knowledge about Meaning, Origin, Function of Central Banking, RBI Functions, Role of Central Bank in Economy

Unit 5- Monetary Policy of Central Bank

Student got basic knowledge about objectives of Monetary Policy, Control Currency by RBI, Quantitative and Qualitative Credit Control

Unit 6- Rural Finance, Financial Inclusion and Micro Finance

Student got basic knowledge about Rural Finance, Co-operative Credit Structure, RRB and NABARD, Financial Inclusion Meaning, Importance, Micro Finance Features and Importance

T.Y. B. Com. Indian Economic Scenario

After successfully completing this course, students will able to:

Unit 1- Present Position of Indian Economy

In this unit students got detailed knowledge about Indian Economy a mix economy, developing economy, changing share of various sector in Indian national income, globalisation impact on India.

Unit 2- Population in India

In this unit students got detailed knowledge about Size and Growth of Indian Population, Sex Composition, Age Structure, Urbanisation.

Unit 3- Human Resource Development

In this unit students got detailed knowledge about Importance and Indicators of Human Resource Development, Importance of Health, Education, Nutrition, Poverty.

Unit 4- Agriculture Sector in India

In this unit students got detailed knowledge about Role and Trends of Indian Agriculture Production, Cause of low Productivity and Measures

Unit 5- Industrial and Services Sector in India

In this unit students got detailed knowledge about Role of Industrialisation in Indian Economy, Role and Problems of Small Scale Industries, Public Sector Enterprise, Service Sector in India.

Unit 6- Infrastructural Development in India

In this unit students got detailed knowledge about Significance of Transport in India, Communication System in India

T.Y. B. Com. Indian Economic Scenario

After successfully completing this course, students will able to:

Unit 1- India's Foreign Trade

In this unit students got detailed knowledge about Composition and Direction of Foreign Trade, India's Balance of Payment, New Trade Policy 2015-20

Unit 2- Foreign Capital and Foreign Exchange Reserves

In this unit students got detailed knowledge about Need and Components of Foreign Capital, Foreign Investment, India's Foreign Exchange Reserves

Unit 3- Price Trends and Inflation

In this unit students got detailed knowledge about Price Trends in India, Causes of Price Rise, Anti-Inflationary Policy of Government

Unit 4- Public Finance

In this unit students got detailed knowledge about Indian Tax Structure, Public Expenditure, Role and Problem of Public Debt, Feature of Current Budget

Unit 5- Federal Finance and Fiscal Development

In this unit students got detailed knowledge about Feature of Federal Finance System, 14^{th} Finance Commission, Fiscal Responsibility in India

Unit 6- Economic Planning and NITI Aayog

In this unit students got detailed knowledge about Economic Planning in India, Achievement and Failure of Five Year Plans, NITI Aayog Origin, Formation, Members

F. Y. B. A. History

Program Outcome:

After successfully completing this FYBA program students will

PO1 : Develop positive attitude and appreciate contribution of freedom fighters towards the independence of India.

PO2 : Get information about sacrifice of freedom fighters.

PO3 : Be made aware with the historical perspectives of the long freedom movement.

PO4 : Get information about movements of farmers, women, workers, dalits, adivasi etc.

Program Specific Outcome:

After successfully completing this FYBA program students will

PSO1 : Have an awareness to be a responsible citizen of the country.

PSO2 : Create a feelings of patriotism and nationalism among them.

PSO3 : Make themselves ready for competitive exams.

Course Outcome
F. Y. B. A. History

Semester First

HISTORY OF INDIA (1857-1950) - (HIS-DSC-A1)

Chapter 1: Socio-religious reform movements

After successfully completing this chapter students will

Course outcome:-

- CO1: Understand the contribution of social reformers in changing concepts of the society for the betterment of mankind.
- CO2: Perceive the fact about gender discrimination and understand the importance to bridge the gap in order to improve the overall social life.
- CO3: Know the loss of society due to casteism.

Chapter 2: Political Trends up to 1919

After successfully completing this chapter students will

- CO1: Develop the spirit of nationalism.
- CO2: Inspire to adapt swadeshi goods / services etc.

Chapter 3: Nationalism and Social Groups: Interfaces

After successfully completing this chapter students will

- CO1: Know their struggle for resurgence.
- CO2: Know importance of social groups in nationalism.

Semester Second

HISTORY OF INDIA (1857-1950) - (HIS-DSC-A2)

Chapter 1: Gandhi and Nationalism after 1920

After successfully completing this chapter students will

- CO1: Be made aware with the historical perspectives of the long freedom movement
- CO2: Hold the spirit of national integrity by knowing the sacrifices made by freedom fighters.

Chapter 2: Communalism

After successfully completing this chapter students will

- CO1: Know the ideals of upholding Indian culture and values of civil society

Chapter 3: Independence and Partition of India

After successfully completing this chapter students will

- CO1: Be introduced to various perspectives of the Indian Freedom Movement.
- CO2: Develop the spirit of nationalism.

S. Y. B. A. History

Program Outcome:

After successfully completing this program students will

PO1 : Acknowledge how Shivaji Maharaj created the empire in adverse circumstances.

PO2 : Be able to study social, religious, economic & political situation in south India.

PO3 : Understands as to why shivaji maharaj was known as "Janata Raja."

PO4 : Get knowledge about hindu empire in medieval era.

Program Specific Outcome:

After successfully completing this program students will

PSO1 : Manage the situation in critical state.

PSO2 : Motivate students for the research work of the Maratha History.

PSO3 : Be useful for the preparation of the competitive examinations.

PSO4: Create and enhance interest about regional History.

Course Outcome
S. Y. B. A. History

Semester First

RISE OF MARATHA POWER (1630-1674) (HIS-321 (G2))

Unit 1: Rise Of Maratha Power – background

After successfully completing this chapter students will

- CO1: Realize that the universe was created from zero.
- CO2: Understand the rise of Shivaji Maharaj through the Shahaji's states.

Unit-2: Shivaj's Relations With The Adilshahi Kingdom

After successfully completing this chapter students will

- CO1: Uunderstands how to overcome in the difficult situations
- CO2: Know that Shivaji Maharaja's envisages shows his bravery.

Unit-3: Shivaji's Relations with The Mughals.

After successfully completing this chapter students will

- CO1: Understands that the victory can be made by power and applying mind.

Unit -4: Shivaji's Coronation

After successfully completing this chapter students will

- CO1: Know that "Shivaji's coronation symbolizes that nothing is impossible if one has guts and will."

Semester Second

RISE OF MARATHA POWER (1630-1674) ((HIS-241 (G2))

Unit -1: Karnataka Expedition

After successfully completing this chapter students will

- CO1: Know about the expansion of Maratha empire in Karnataka.
- CO2: Understands the foresight vision of Shivaji Maharaj.

Unit -2: Relation With Foreign Powers

After successfully completing this chapter students will

- CO1: Understands how Shivaji Maharaj overcame the foreign diplomacy
- CO2: Understands Shivaji Maharaj's dealings skill.

Unit -3: Chhatrapati Shivaji Maharaj: Administration And Policy

After successfully completing this chapter students will

- CO1: Understands Shivaji Maharaj as a management guru.
- CO2: Know about Shivaji Maharaj's administration, army, justice, currency.

Unit-4: Marathe War OF Independence

After successfully completing this chapter students will

- CO1: Knows the performance of Sambhaji Maharaj's governance.
- CO2: Understands the loyalty of sardar's toward Swaraj.

Course Outcome
T. Y. B. A. History

Program Outcome:

After successfully completing this program students will

PO1 : Aware for "How the overall knowledge enhanced from medieval to modern era."

PO2 : Know about world history.

PO3 : Understands the nationalism of different countries.

PO4 : Understand the aftereffect of war.

PO5: Aware of the importance of revolution.

PO6: Understand the bad effect of dictatorship.

PO7: Know the importance of "United Nations Organization."

Program Specific Outcome:

After successfully completing this program students will

PSO1 : Inculcate the rational thinking.

PSO2 : Study the policies made for establishing the world peace.

PSO3 : Increase in his understanding and awareness about cross culture.

PSO4: Will be prepared for facing competitive exams.

PSO5: Nurture the values of freedom, equality and brotherhood.

Semester First

HISTORY OF MODERN WORLD (1789-1900) (HIS-351 (G3))

Unit 1 : The French Revolution Of 1789

After successfully completing this chapter students will

- CO1: Know the values of freedom, equality and brotherhood were understood.
- CO2: Know about how the foundation of democracy was built.
- CO3: Understands how human values have emerged on a global scale.

Unit 2 : Age Of Meternich

After successfully completing this chapter students will

- CO1: Know the efforts taken by Metrenic to establish the peace on global level.
- Co2: Know that his thoughts leads to establishment of UNO.

Unit Unit 3 : Growth Of Nationalism In Europe

After successfully completing this chapter students will

- CO1: Know how the nationalism evolves and it influences the people of nation.

Unit 4 : Indutrial Revolution

After successfully completing this chapter students will

- CO1: Understands the reasons behind the lagging of industrial revolution in India, in comparison of other nations.
- CO2: Know that revolution enhances the life of people.

Unit 5 : Meiji Revolution

After successfully completing this chapter students will

- CO1: Know how Japan evolves / leads world in technology in spite of having the worst situation, by the value of nationalism.

Unit 6 : American Civil War
After successfully completing this chapter students will

- CO1: Know how the Civil War had a greater impact on American society and the polity than any other event in the country's history that leads her to be a world leader today.

Semester Second

HISTORY OF MODERN WORLD (1901-1945) (HIS-361 (G3))

Unit 1 : Balkan Nationalism

After successfully completing this chapter students will

- CO1: Know how the greed of imperialism endangers the whole mankind.

Unit 2 : Rise Of Nationalism In China

After successfully completing this chapter students will

- CO1: Know how a nation can become strong through the nationalism mindset.

Unit 3 : The First World War

After successfully completing this chapter students will

- CO1: Know the effects of extreme imperialism leads in destroying human values, hindrances in development of mankind.

Unit 4 : The Rusian Revolution (1917)

After successfully completing this chapter students will

- CO1: Know the Karl Mark's ideology of communism.
- CO2: The role of communism in transformation of nation.

Unit 5 : The Rise Of Dictatorship

After successfully completing this chapter students will

- CO1: Know that how an extreme nationalism leads, in development as well as to ruin the nation.

Unit 6 : The Second World War

After successfully completing this chapter students will

- CO1: Understand the importance of global peace and the role of United Nations Organisation.
- CO2: Understand that any problem can be solved through understanding and peacefully rather than waging a war.

***PSYCOLOGY DEPTT.* T.Y. B.A SEM- V**

COURSE OUTCOME :-

TYBA (PSYCOLOGY - 35/A)

COURSE - (PSY -35/A) - MODERN APPLIED PSYCOLOGY

AFTER SUCCESSFULLY COMPLETING THIS COURSE STUDENTS WILL BE ABLE TO :-

CH-1 Introduction to applied psychology:-

*def^{n} and nature of applied psychology

* field of applied psychology

* approaches to applied psychology

* non experimental method - field and ex post factor field studies

* techniques of data collection -observation, interview, questioners

CH-2 community application

* def^{n} and nature of community psychology

* field of community psychology

*community issues - littering, energy safety, social planning.

*prevention programs :- indirect method, direct method, primary secondary, tertiary programs

* application in maintaining community mental health.

CH-3 clinical applications:-

* psychotherapy differences and commonalities

* importance of therapist- patient relationship

* types of therapies - cognitive, behavioral(CBT), psychodynamic therapies, dream analysis and hypnosis

* behavior therapy- systematic desensitization (for phobia) family therapies

* application in life positive thoughts and self hypnotism

CH-4 health application:-

*nature, def^{n} types of health

*stress and stressor - nature, def^{n} type.

*major effect stress - illness, heart diseases, hypertension, cancer

*stress reduction - bio feedback, relaxation, assertiveness as a prevention measure.

***PSYCOLOGY DEPTT.* T.Y. B.A SEM- IV-DSC 1-C(02)**

COURSE OUTCOME :-

S.Y.B.A (PSY - 241)

AFTER SUCCESSFULLY COMPLETING THIS COURSE STUDENTS WILL BE ABLE TO :-

CH-1- Aclolescence :-

* Puberty :- Physical transition to Adulthood :- Hormonal change , body growth, sex maturation

* The Psychological Impact Of Pubertal Events :- reaction to puberty change, early v s late maturation

* Health Issues :- nutritional needs, eating disorder, sexual activity STD teenage pregnancy

*Cognitive Development :- Piagets, Erikson's theory - identity vs. identity confusion, self understanding, change in self concept, self esteem

*Family relations peer relations development problem depression suicide and delinquency

CH-2 Early Adulthood:-

* Health and Fitness :- nutrition exercise substance abuse, psychological stress.

* Vocational Choice :- selecting vocation factors influencing vocational choice establishing a career woman and ethnic minorities combining work and family

*Erikson's theory close relationship romantic love friendship loneliness

*Family Life Cycle :- living home, marriage, parenthood

* Diversity Of Adult Life Style :- singlehood, cohabitation, childlessness, infertility causes and techniques

CH-3 Middle and late adulthood

* Health And Fitness Of Midlife:- sexuality illness hostility and anger adaptive the physical challenges, stress management, exercise and optimistic outlook

*Erikson's theory:- generativity vs. stagnation, stability and change in self concepts, personality

* Relationship at Midlife:- marriage, divorce, changing parent child relationship, grand parenthood, middle age, children and their aging, parents siblings, friendships

*Late Adulthood:- nature, physical changes, health fitness and disabilities Erikson's theory - ego integrity vs. despair.

*Relationship In Late Adulthood :- relationship with adult children, grandchildren, retirement and leisure the decision to retire, adjustment to retirement, leisure activity.

COURSE OUTCOME :-

F.Y.B.A. (PYSCHOLOGY)(PSY-231):-

PSY-DSC 1C

SEM- I COURSE (PSY101)- FOUNDATION OF PSYCHOLOGY SEM -I

AFTER SUCCESSFULLY COMPLETING THIS COURSE STUDENTS WILL BE ABLE TO :-

CH-1 INTRODUCTION TO PSYCHOLOGY ITS MEANING SCHOOL OF PSY BRANCH OF PSY AND METHODS OF PSYCHOLOGY

CH-2 COGNETIVE PROCESS- IN ATTENTON- TYPE, DETERMINANT

*PERCEPTION - Def^{n} NATURE LAW OF PERCEPTUAL ORGANIZATION.

*CONDITIONING - CLASSICAL OPERANT OBSERVATIONAL.

*MEMORY :- Def^{n} TYPE, MEMORY IMPROVEMENT TECHNIQUE

*EMOTION:- Def^{n} EXTERNAL, EXPRESSION OF EMITION, EMONTIONAL INTELIGENCE

CH-3 MOTIVATION - Def^{n} , MOTIVATION CYCLE, BIOLOGICAL MOTIVE.

PERSONALITY :- THEORIES OF PERSONALITY, Def^{n} MISCONCEPTION OF PERSONALITY

INTELLIGENCE:- Def^{n,,} BASIC CONCEPT (MA,CA,IQ) AND THEORIES

PSY -(DSC 1C) SEM-II COURSE

(PSY-102) INTRODUCTION TO SOCAIL PSYCHOLOGY

AFTER SUCCESSFULLY COMPLETING THIS COURSE STUDENTS WILL BE ABLE TO :-

CH-1:- INTRODUCTION TO SOCAIL PSYCHOLOGY- Def^{n,,} NATURE, HISTORY, (SPECIAL EMPHASIS ON INDIA) SCOPE LEVEL SOCIAL BEHAVIOR, APPROACHES TOWARD UNDERSTANDING SOCIAL BEHAVIOR, PRO SOCIAL BEHAVIOUR.

CH-2:- INDIVIDUAL LEVEL PROCESS - DIFFERENCE Bet^{n} SOCIAL COGNITION AND SOCIAL PERCEPTION

*THEORIES OF ATTRIBUTION, THEORIES OF CORRESPONDANT INFERENCE

* ATTITUDE :- Def^{n,} COMPONENTS, DIMENSION AND FORMATION OF ATTITUDE

*SEFL CONCEPT:- NATURE OUR SENSE OF SELF AND DEVELOPMENT OF SOCIAL SELF CONCEPT

*AGGRESSION - MEANING AND NATURE, PREVENTION AND REDUCING AGGRESSION

CH-3- GROUP DYNAMICS-

*GROUP - WHEN WE JOIN AND WHEN WE LEAVE, THE BENIFITS OF JOINING

*CO-OPERATION AND CONFLICT

*CONFORMITY -FACTOR AFFECTING COMNFORMITY

*OBEDIENCE AND AUTHORITY

*LOCUS OF CONTROL, INCREASING OUR HELPING NATURE.

***PSYCOLOGY DEPTT.* T.Y.B.A. - SEM VI**

COURSE OUTCOMES:-

T.Y.B.A. (PSYCHOLOGY-361)

COURSE(PSY-361A)-APPLIED PSYCHOLOGY AND HUMAN LIFE:-

AFTER SUCCESSFULLY COMPLETING THIS COURSE STUDENTS WILL BE ABLE TO :-

CH-1 SOCIAL APPLICATION :-

* PSYCHOLOGY OF APATHTICAL BEHAVIOUR - SOCIAL AND POLITICAL APATHY PSYCHOLOGY

* PSYCHOLOGY OF TERROR - CAUSES AND PREVENTION

* PSYCHOLOGY OF CURRUPTION - CAUSES AND PREVENTION

* PSYCHOLOGY OF SOCIAL CHANGE - POSITIVE AND NEGATIVE EFFECT

* PSYCHOLOGY OF PROPOGANDA - EFFECT ON SOCIAL BEHAVIOR

CH-2 PSYCHOLOGY OF CRIME:-

* NATURE AND DEF OF CRIME

* CAUSES OF CRIME - SOCIAL CAUSES (BROKEN FAMILY ABSENCE OF SOCIAL CONTRL, ADDICTION, RELIGION, EDUCATION MEDIA, CHANGE IN SOCIAL VALUES), ECONOMICAL, POLITICAL, GEOGRAPHICAL AND JUDICIARY CAUSE.

*TYPES OF CRIME - JUVENILES, WHITE COLLAR CRIME, DRUG ADDICTION

*REMEDIES - PAROL PRBATION, OPEN JAIN, REFORMATIONS, VALUE EDUCATION AND AWARNESS OF LAW

*APPLICATION IN CONTROLLING CRIMINAL BEHAVIOR -SOCIAL AWARNESS AND SOCIAL RESPONSIBLITY

CH-3 POSITIVE PSYCHOLOGY:-

* ASSUMPTION GOALS $Def^{n,}$ AND IMPORTANCE OF POSITIVE PSYCHOLOGY

* PSYCHOLOGY OF WELL-BIENG NATURE AND NECESSITY.

* HAPPINESS - Def^{n} TYPES (HEDONIC AND EUDEMONIC) AND ITS EFFECT ON LIFE

* SUBJECTIVE WELL-BEING- THE HEDONIC BASIS OF HAPPINESS , MEASURING SUBJECTIVE WELL-BEING AND LIFE SATISFACTION.

* APPLICATION IN LIFE - EMITIONAL, PSYCHOLOGICAL AND SOCIAL LIFE

CH-4 COMMUNICATION AND INTERVIEW APPLICATION :-

* COMMUNICATION PROCESS - NATURE Def^{n} TYPE

* EFFECTIVE COMMUNICATION- PREPARATION FOR SPEECH, ANALYSIS OF AUDIENCE AND SKILL OF PRESENTATION

* Def^{n} NATURE AND TYPES OF INTERVIEW - FACE TO FACE PRELIMINARY AND DEPTH, SEQUENTIAL AND PANEL, DIRECTIVE AND NON DIRECTIVE, STRESS INTERVIEW

*GENERAL ETIQUETTES ABOUT NAMETAG, HAND SHAK, CELL PHONE, ENTRY AND EXIT, DO AND DONT DURNG THE INTERVIEW.

*APPLICATION IN PROFESSIONAL LIFE - SALES AND NEGOTIATION AND RESPONDING THROUGH PROPER GESTURE AND KNOWLEDGE.S

Department of Political Science

FYBA : Indian Constitution : Sem-I

- **Programme outcomes :-**

After successfully completing B.A. (Political Science) Programme students will be able to

PO1) Understands the background of the Indian Constitution. Understands the nature of the Indian Union.

PO2) Understands the students their fundamental rights and fundamental duties as well as the Directive Principles of State Policy.

PO3) Provides information on the process of amending the Constitution and other commissions. Understands other important constitutional amendments.

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will
PSO1) The Constitution is important for the day-to-day running of India.

PSO2) Implementation of fundamental rights, basic duties and Directive Principles of State Policy.

PSO3) The Constitution can be changed according to the situation.

FYBA : IndianGovernment : Sem-II

- Programme outcomes :-

After successfully completing B.A. (Political Science) Programme students will be able to

PO1) Understands the powers and functions of executive and legislature .

PO2) Provide information about powers and types of courts as well as judiciary system of India .

PO3) Teach how civil servants perform duty ? and legislative, political and financial relations between cetre and state government .

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will

PSO1) Awareness was created about the governance of the country.

PSO2) It was observed that the judiciary works independently and impartially.

PSO3) The relationship between the center and the state government and the work of the chartered servants were noticed.

F.Y.B.A. POLITICAL SCIENCE

Indian Constitution

Semester - I

Chapter:1 Indian Constitution & Indian Federal System

A.Indian Constitution:Historical background,Making Process, Preamble,Salient features of Indian Constitution

B.Indian Federal System : Structure,Nature, Features of Indian Federal System

Chapter : 2 Fundamental Rights, Duties & Directive Principals

A.Fundamental Rights & Duties : Meaning, Scope, Nature & Importance of fundamental Rights & Duties,

Difference between Rights & Duties

B.Directive Principals : Meaning, Scope, Types, Nature and Importance of Directive Principles ,

Differences between Fundamental Rights and Directive Principles.

Chapter :3 Constitutional Bodies And Amendment Process

A.Constitutional Bodies : National Minority Commission

National Human Rights Commission National Institution for Transforming India

B.Amendment Process: Meaning, Importance

Provision in Indian Constitution Major Amendments – 73,74,86,101

Semester – II

Chapter : 1 Government (Union and State)

A) Executive :- (Union and State)

I) Union Executive

1. President
2. Vice President
3. Prime Minister
4. Council of Minister

II) State Executive :

1. Governor
2. Chief Minister
3. Deputy Chief Minister
4. Council of Ministers (Composition, Powers and Functions, Law making process)

B) Legislature :- (Union and State)

I)Union Legislature :- Lok Sabha, Rajya Sabha

II)State Legislature:- Vidhan Sabha, Vidhan Parishad

(Composition, Powers and Functions, Law making process)

Chapter : 2 Judiciary and Constitutional Commission:-

A)Judiciary : Supreme Court, High Court (Composition Powers and Functions) Judicial Review, Judicial Activism Public Interest Litigation (PIL), Judicial Reforms

B)Constitutional Commission : Atterney General,

Comptroller and Auditor General, Lokpal, Lokayukta,
Election Commission of India (Composition, Powers and Functions)

Chapter : 3 Centre-State Relation and Civil Services :-

A)Centre – State Relation :- Legislative,Administrative, Financial Relation, Centre-State Dilemma

B)Civil Service : Meaning, Historical background,Union Public Service Commission, State Public Service Commission (Power, functions and importance)

Department of Political Science

SYBA : Socio-Political Movements In Maharashtra : Sem-III

- Programme outcomes :-

After successfully completing B.A. (Political Science) Programme students will be able to

1)Understands the socio-political movements of Maharashtra like satyashodhak movement, muslim satyashodhak movement etc.
2)Understands the historical background of Dalit movement .
3)It may enable students to acquire knowledge about samyukt Maharashtra movent as well as history of creation of maharashtra state .

4)It may enable students to acquire knowledge about Tribal movement and present scenario .

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will
1) Understands the importance of movement.

2) How is the Dalit movement necessary? It was known.

3) Understands how Maharashtra was created.

4) Information about deprivation of tribal rights.

SYBA : Administration of Maharashtra : Sem-IV

- Programme outcomes :-

After successfully completing B.A. (Political Science) Programme students will be able to

1) Gets historical, social, administrative information of Maharashtra and also understands how the districts of Maharashtra were formed .

2) Understands the work of district administration and Superintendent of Police .

3) Understands the work related to local administration and also understands the 73rd amendment to the constitution .

4) What is the role of Municipal Corporation, Municipal Corporation, Commissioner, 74th Amendment? Understands information about this .

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will

1) How were the districts of Maharashtra formed? It makes sense .

2) How is the district run? It makes sense .

3) Understands the powers and functions of local administration as well as the 73rd Amendment.

4) What is the role of Municipal Corporation, Municipality, Commissioner, 74th Amendment ? Get guidance in this regard .

S.Y.B.A. **POLITICAL SCIENCE**

Socio - Political Movements in Maharashtra

Semester III

Chapter 1 - Satyashodhak Movement -

- Satyashodhak Movement
- Muslim Satyashodhak Movement
- Impact and importance of Satyashodhak Movement
- Satyashodhak Movement & Today Position

Chapter 2 - Dalit Movement -

- Historical Background
- Dalit Movement before Dr. Ambedkar
- Movement in Dr. Ambedkar Age.
- Dalit Movement after Dr. Ambedkar
- Present position of Dalit Movement

Chapter 3 - Samyukta Maharashtra Movement-

- State Reorganization Committee

i)Dar Commission

ii)Fazal Ali Commission

iii)JVP Committee

iv) Nagpur Treaty

- Samyukta Maharashtra Samitee.
- Establishment of Maharashtra State.
- Importance of Mumbai

Chapter 4 - Adivasi Movement -

- Historical Background
- Origin, Objectives and Evolution
- Issues of Advasi Development
- Remedies - i) Efforts at Govt. level
  ii) Efforts at NGO. level
- Adivasi Movement Today

Semester IV

Chapter 1 - An introduction to Maharashtra -

- Background of Maharashtra - Historical, Geographycal & Social
- Silent features of Administration of Maharashtra
- Structural Administration of Division and District
- Structure and Functions of State Secretary
- Role of Chief Secretary of State

Chapter 2 - District Administration -

- Meaning, Importance, objectives & functions
- District Collector – powers, functions, position and role
- Law and order – Principles, Methods and Agencies
- District Police Superintendent - Role, powers & functions

Chapter 3 - Rural Local Administration -

- Panchayati Raj Institutions - Organization, power, functions and Finance

i)Gram Panchayat - Role of Gram Sevak, Gram Sabha.

ii)Panchayat Samiti - Role of Block Development Officer

- Zilla Parishad - Role of Chief Executive officer
- 73rd Amendment and Role of womens in local self Govt.

Chapter 4 - Urban Local Administration

- Urban Local Institutions - organization, power, Functions & finance
- (i)Municipality - Role of Chief Officer
- (ii) Municipal Corporation - Role of Commissioner
- Other Urban Local Self Institutions
- 74th Amendment & role of women in Urban local self govt.

Department of Political Science

TYBA : Principles of public administration : Sem-V

- Programme outcomes :-

After successfully completing B.A. (Political Science) Programme students will be able to

1) Students acquire Information about the importance of civil service, recruitment methods .

2) Understands the importance of training .

3) Understands the relationship, rights and duties of the recruiter and the employee .

4) How does the administration control the people? That makes sense .

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will

1) Understands the function of civil charter service .

2) How important is training? It makes sense .

3) How do employers and employees work ? That makes sense .

4) How does the administration work? That makes sense .

TYBA : Personnel Administration & Management : Sem-VI

- Programme outcomes :-

After successfully completing B.A. (Political Science) Programme students will be able to

1) Understands the importance of management and the relationship between leadership .

2) What is the relationship between policy formulation and management co-ordination ? That was the information .

3) Understands the importance of leadership qualities and style .

4) Information about the importance of morale, ethics, responsibility and public relations tools in the administration .

- Programme specific outcomes :-

After successfully completing B.A. (Political Science) Programme students will

1) Understands the importance of leadership in management .

2) Understands the importance of policy determination in management .

3) Is it important to have good leadership? That makes sense .

4) Various aspects are important while administering .

T.Y.B.A. **POLITICAL SCIENCE**

Personnel Administration and Management

Semester V

1)Personnel Administration:-

a)Meaning & Significance

b)Characteristics of Civil Services

c)Functions of Civil Services

d)Personnel Recruitment

1)Meaning,& Importance

2)Methods of Recruitment

a)Direct Recruitment

b)Indirect Recruitment (Promotion)

3)Methods of Determining Qualification.

1.Written Test
2.Interview
3.Performance Test
4.Psychological Test
5.Physical Test

2)Training:-

a)Meaning, Importance and Objectives of Training

b)Types of Training

1.Formal Training

2.Informal Training

i)Pre-entry Training-Apprentice, Internship

ii)Post-entry Training-

iii)In-service Training-Orientation, Refresher

c)Methods of Training

d)Training in India for Civil Servants

3)Employer-Employee Relation:-

a)Right to Association, Right to Strike

b)Machinery for Negotiations

c)Administrative Tribunals

d)Retirement-Purpose, Kinds, Benefits

e)Political Neutrality, Code of Conduct.

f)Reservation Policy

4)Administrative Accountability:-

a)Concept of Administrative Accountability

b)Control of Legislative on Administration

c)Control of Executive on Administration

d)Control of judiciary on Administration and Ways of Judiciary Control.

e)Control of Citizens on Administration.

Semester VI

1)Management:-

a)Meaning & Types of Management

b)Characteristic of Management

c)Functions of Management, POSDCORB

d)Test of good Management and Importance

2)Administrative Leadership:-

a)Meaning, Definition & importance

b)Approaches of Administrative Leadership

c)Development of Administrative Leadership &characteristic of Leadership.

d)Essential Qualities of Administrative Leadership & types of Leadership

e)Functions of Administrative Leadership

f)Leaderships styles

3)Policy Formation and Co-ordination :-

a)Policy Formation

1.Meaning,Definition & Basis of Policy Formation

2.Policy Formulation in India

b)Co-ordination

1.Meaning , Need & Importance

2.Principles of Co-ordination & Characteristics

3.Requisites for good Co-ordination

4.Techniques of Effective Co-ordination

4)New Trends in Management :-

a)Morale-Meaning, Definition & Importance Factor affecting Morale Measurement of Morale

b)Administrative Ethics - Need of Ethics, Scope of Administrative Ethics, Principle of Ethics

c)Social Responsibility of Administration - Meaning, Definition & Nature, Forces required for social responsibility

d)Public Relation- Meaning, Definition & Importance Means and Methods of Public Relations, Role of Media in Public Relations

Dadasaheb Devidas Namdeo Bhole college Bhusawal

Department of Chemistry

B.Sc.(Chemistry)

Programme Outcomes

After successfully completing **B.Sc.(Chemistry)** programme student will able to

PO1: To promote understanding of basic facts and concepts in Chemistry while retaining the excitement of Chemistry.
PO2: To make students capable of studying Chemistry in academic and Industrial courses.

PO3: To expose the students to different processes used in Industries and their applications.
PO4: To develop ability and to acquire the knowledge of terms, facts, concepts, processes, techniques and principles of subjects,
PO5: To inquire of new knowledge of chemistry and developments therein.

PO6: To develop proper aptitude towards the subjects.

PO7: To develop the power of appreciations, the achievements in Chemistry and role in nature and society.
PO8: To develop skills required in chemistry such as the proper handling of apparatus and chemicals.

Programme Specific Outcomes

After successfully completing **B.Sc.(Chemistry)** programme student will

PSO1: Understand the significance of wave function and postulates of quantum mechanics.
PSO2: Able to explain the principles of electrode processes and apply them during Practical's.

PSO3: Analyze the rotational spectra of diatomic molecules and determine the bond length.
PSO4: Apply the radioactivity principles for various chemical and biological investigations.
PSO5: Analyze the given crystal structure and determine the indices of planes, inter-planer distances and type of crystal structure.

PSO7: Apply Knowledge basic principles and synthesis of nanomaterials. classification,

composition and processing of cement, classification and composition of alloys,,types manufacture and applications of fertilizers.

PSO8: Ability to understand organic reactions like nucleophilic substitution, electrophilic substitution, nucleophilic addition, electrophilic addition and elimination..
PSO9: Students will be able to function as a member of an interdisciplinary problem solving team, Compare the Instrumental methods and non instrumental methods and there advantages.
PSO10: Develop the problem of detection and separation using analytical instruments.
PSO11: Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
PSO12: Students will be able to explain why chemistry is an integral activity for addressing social, economic, and environmental problems.

Course outcome

F.Y.B.sc (Chemistry)

Course (CH-101): Physical and inorganic chemistry

After successfully completing this course students will able to

- CO 1 - Electrolytic conductance electrolytic conductance, conductometric titrations, and its applications.
- CO 2- surface chemistry adsorption, absorption, its factors, mechanism, types, difference, and adsorption. Isotherm.
- CO 3 – Mathematical preparation in chemistry logarithm, graphical representation, derivatives, and integration.
- CO 4 – periodic properties atomic and ionic size, ionization energy, electron affinity, electronegativity.
- CO 5 – S- Block element electronic configuration, variation, atomic radii, IE, color of flame, property complex, etc.

F.Y.B.sc (Chemistry)

Course (CH-201): Physical and inorganic chemistry

After successfully completing this course students will able to

- CO 1 – Gaseous state, kinetic theory, gas law, Vender waal equation, Thomson effect.
- CO 2- Liquid state, surface tension, factors, viscosity, unit and measurement.
- CO 3 –Second law of thermodynamics, statement, entrophy, unit and expression.

- CO 4 – Metals and metallurgy, occurrence, concentration, calcinations, roasting, refining.
- CO 5 – P- Block element, electronic configuration, variation, atomic radii, IE, color of flame, property complex, etc.

F.Y.B.sc (Chemistry)

Course (CH-102): Organic and inorganic chemistry

- CO1: Introduction to Organic Chemistry, general properties of organic compounds, applications Structural effects fission, types of reagents: rearrangement reactions.
- CO2: Hydrocarbons Alkanes, Alkenes,Alkynes, Introduction, nomenclature (common and IUPAC system) Preparation Reactions: Addition of halogens, hydrogen halides, hydration.

- CO3: Haloalkanes and haloare, classification,nomenclature dehydrohalogenation,formation of Grignard's reagent. nucleophilic substitution reactions with Ullman reaction.

- CO4: Alcohols, phenols and ether Alcohols, classification, nomenclature (common and IUPAC system), methods of preparation Physical properties of alcohols. Reactions of alcohols.
- CO5: Ionic equilibria,Strong and weak acids and bases, degree of dissociation, dissociation constants of acids and bases, P^{H} and P^{OH},Buffer solutions, buffer action, buffer capacity, applications of buffer solutions.
- CO6: VSEPR theory and shapes of covalent molecules Sidgwick – Powell theory, VSEPR theory: assumptions, need, Applications of VSEPR theoryLimitations of VSEPR theory.

F.Y.B.sc (Chemistry)

Course (CH-202): Organic and inorganic chemistry

- CO1: structure, nomenclature,Aliphatic,Aldehydes ,Aliphatic Ketones.Reducing properties,Tollen's reagent and Fehling's solution, Clemmenson reduction, Wolff Kishner reduction, Preparation of benzaldehyde by Gatterman Kotch reaction,

- CO2: Carboxylic acids and their derivatives nomenclature preparation of carboxylic acidsPhysical properties of acids, acidity of carboxylic acids. Reactions of carboxylic acids.

- CO3: Amine,Aliphatic amines: Introduction, classification, nomenclature, preparation of amines
- CO4**:** Volumetric analysis,Measurement of volume, effect of temperature on volume, apparatus for precise measurement

- CO5: Chemical bonding and structure**,**Attainment of stable configuration,theory, Heitler- London theory and Pauling-Slater theory. Types of overlap Limitations

S.Y.B.sc (Chemistry)

Course (CH-301): Physical and inorganic chemistry

S.Y.B.sc Physical and inorganic chemistry

After successfully completing this course students will able to

- CO 1 –Solution, types, classification, .
- CO 2 – Colligative property, lowering of vapour pressure, boiling point elevation, freezing point depression, osmosis .
- CO 3 – The d- block element, general characteristics, electronic configuration, variation, atomic radii.

S.Y.B.sc (Chemistry)

Course (CH-302): Organic and inorganic chemistry

S.Y.B.sc Organic and inorganic chemistry

- **CO1** -Stereoisomerism**,**Isomerism, classification of isomerism, stereoisomerism, types of stereoisomerism,Projection formulae,Optical isomerism,Geometrical isomerism,Conformational isomerism,Conformational isomers,
- **CO2- Heterocyclic and polycyclic aromatic compounds Five membered ring with one heteroatom** Introduction, preparation Six membered ring, Polycyclic aromatic compounds
- **CO3-Solvents, solutions Acids and Bases,**Donar and acceptor properties,Molten salts, Generalized Acid-base concepts, Differentiating and levelling solvents,Co-solvating agents. application and limitation of HSAB concepts.

S.Y.B.sc (Chemistry)

Course (CH-304): Basic Analytical chemistry (Skill enhancement course)

S.Y.B.sc Basic Analytical chemistry

After successfully completing this course students will able to

- CO 1 –Introduction to Analytical chemistry, concept, sampling, accuracy, presion, error, handling.
- CO 2 –Acid base titration, indicator, curves and titration between strong and weak acids-bases.
- CO 3 – Precipitation titration, principal, preparation ,estimation, application.
- CO 4 – Unit chromatography, definition ,principal, types and application.

S.Y.B.sc (Chemistry)

Course (CH-401): Physical and inorganic chemistry

S.Y.B.sc Physical and inorganic chemistry

After successfully completing this course students will able to

- CO 1 – Electrochemistry, E.M.F, single electrode potential, S.H.E, calomel electrode, classification of electrodes.
- CO 2 – Chemical thermodynamics, Helmholtz energy, gibb's energy, calapeyron equation, clausius- clapeyron equation.
- CO 3 – Basic concept of co-ordination energy, double salt and co-ordination compound, ligands, chelates.
- CO 4 – Conductor, insulator and semiconductor, properties of metals conductor, insulator and semiconductor, and application.

S.Y.B.sc (Chemistry)

Course (CH-402): Organic and inorganic chemistry

S.Y.B.sc Organic and inorganic chemistry

- **CO1- Synthetic Reagents,**Introduction, active methylene group,Acetoacetic ester,Preparation, Synthesis
- **CO2-Organometallic compounds,**Nomenclature of organometallic compounds, carbon-metal bond in organometallic compounds,Organolithium compounds,Preparation Organomagnesium compounds,Organocopper compounds,Organozinc compounds,Reformatsky reaction.
- **CO3-Molecular Orbital Theory (MOT),**LCAO Method,combination of orbitals,Non Bonding combination of orbitals,Rules for linear combination of orbitals.

S.Y.B.sc (Chemistry)

Course (CH-404): Basic Analytical chemistry (Skill enhancement course)

S.Y.B.sc Basic Analytical chemistry

After successfully completing this course students will able to

- CO 1 –Redox titration, principal, preparation ,estimation, application
- CO 2 –Complexometric titration, complex, gelates, characteristics of metal and application.
- CO 3 – Gravimetric analysis, advantage, condition, steps of precipitation and application.

T.Y.B.sc (Chemistry)

Course (CH-351): Physical chemistry

T.Y.B.sc Physical chemistry

After completing the course student will be able to

- CO 1-Electrochemical cell and its application, chemical cell, concentration cell, liquid junction, application, determination of pH .
- CO 2-Photochemistry, law photochemistry, quantum yield, fluorescence, phosphorescence, photochemical gas reaction.
- CO 3- Phase rule, Gibbs phase rule, terms, one component system, two component system, three component system.
- CO 4 –Radioactivity and its application, decay system, characteristics, units, alpha and beta particles, G.M counter and application of radioactivity.

Course (CH-352): Inorganicl chemistry

T.Y.B.sc Inorganic chemistry

After completing the course student will be able to

- To describe the VSEPR theory to predict shape of molecules from electron pairs.
- To describe the bonding in simple compounds using VBT.
- To describe the principles of VBT to predict hybridization of orbitals.
- To understand how CFT explains electronic structure, colour and magnetic properties of co-ordination compounds.
- To introduce the basic principles of MOT and electronic geometry of molecules.

Course (CH-353): Organicl chemistry

T.Y.B.sc Organic chemistry

After completing the course student will be able to

- To study different types of organic reactions.
- To understand the mechanisms of different types of reactions.
- To distinguish between types of substrates and types of reagents.
- To understand ways of attack of reagent, breaking and formation of bonds in different reaction mechanisms.
- To study kinetics, evidences and factors affecting different types of reactions.
- To study stereochemistry of different reactions.
- To understand role of different reagents in different reactions.

Course (CH-354): Analytical chemistry

T.Y.B.sc Analytical chemistry

After completing the course student will be able to

- CO 1- Solvent extraction, distribution coefficient, extraction, separation, counter current distribution.
- CO 2- Ion exchange chromatography, cation exchange resin, anion exchange resin, cross linkage, application.
- CO 3-Size exclusion chromatography, principle, exclusion limit, types and application.
- CO 4 – Gas chromatography, principal, column, detector, efficiency, theoretical plates.
- CO 5- High performance liquid chromatography, principal, equipment, choice of column and material.
- CO 6- Electrophoresis, principal, properties, theory, classification, technique, application.

Course (CH-355): Industrial chemistry

T.Y.B.sc Industrial chemistry

After completing the course student will be able to

- To produce graduates with enhanced skills, applied knowledge, aptitude to carry out higher studies or research and development in the various industrial areas.
- To make the student cognizant about important aspects of Chemical Industries, Industrial work culture and environment.
- To prepare the students for immediate entry to the workplace with sound theoretical knowledge and some basic experimental concepts in the area of various industries viz. Sugar Industry, Fermentation Industry, Petroleum and Petrochemicals.

- To offers the synergism between basic concepts of Chemistry with Industrial applications.
- To equip the students with knowledge of some industrial organic synthesis as requirement of diverse chemical industries.
- Empower the students to understand the concepts in chemical processing, engineering and industrial development.

Course (CH-356 B): Environmental chemistry

T.Y.B.sc Environmental chemistry

After completing the course student will be able to

- CO 1- Atmosphere and air pollution, composition, primary pollutant, smog, harmful effect of CFC's.
- CO 2- Hydrosphere and water pollution, water resourses, nitrogen cycle, classification of water pollutant, water quality parameter.
- CO 3-Water treatment and effulent management, domestic sewage water treatment process , industrial sewage water treatment process, treatment of drinking water.
- CO 4 –Instrumental methods in environmental analysis, atomic absorption spectroscopy, determination of micro nutrients.
- CO 5-Green house effect and global warming, green house gases, sources, sink, global warming, climate change .

T.Y.B.sc (Chemistry)

Course (CH-361): Physical chemistry

T.Y.B.sc Physical chemistry

After completing the course student will be able to

- CO 1-Investigation of molecular structure, Debay-Huckel method, molecular spectroscopy, bond length, reduce mass and moment of inertia.
- CO 2-Chemical kinetics, rate law, order of reaction, first- second-third order of reaction, examples: Arrhenius equation.
- CO 3- Solid state, Weiss and Miller indices, properties of crystal, Braggs equation, structure of NaCl, liquid crystal, application.
- CO 4 –Elementary quantum mechanics, black body radiation, Planks radiation, Compton effect, wave function, operator, postulates, etc.

Course (CH-362): Inorganic chemistry

T.Y.B.sc lnorganic chemistry

After completing the course student will be able to

- To describe basic principles of nanomaterials.
- To describe basic synthesis of nanoparticles.
- To describe composition and technological importance ofinorganic solids.
- To describe composition of cement, lime and alloys.
- To describe manufacture of fertilizers.

Course (CH-363): Organic chemistry

T.Y.B.sc Organic chemistry

After completing the course student will be able to

- To study principle of spectroscopy and to understand wave parameters and terms involved in spectroscopy.
- To study different types of spectroscopy.
- To understand principle, concept and the terms used in each type of spectroscopy.
- Interpretation of UV, IR, NMR spectra.
- Use of spectral data for determination of structure of unknown organic compounds.
- To study different applications of each type of spectroscopy.

Course (CH-364): Analytical chemistry

T.Y.B.sc Analytical chemistry

After completing the course student will be able to

- CO 1- Spectrometry, interaction of electromagnetic radiation, absorption, Beers law, instrumentation, deviation.

- CO 2- Emission spectrometry, flame emission spectrometry, plasma emission spectrometry.
- CO 3-Atomic absorption spectrometry, principal, instrumentation, preparation, application.
- CO 4 –Nephalometry and Turbidimetry, instrumentation, choise, comparison, application.
- CO 5-Thermal methods, instrumentation, difference, experimental and instrumental factors and application.

Course (CH-364): Industrial chemistry

T.Y.B.sc industrial chemistry

After completing the course student will be able to

- To make student perceptive about various commodity industries viz. Cosmetics and Perfumes, Dyes and Pharmaceuticals, Pesticides, Soaps and Detergents, related diversified and multidisciplinary fields of chemical industry.
- To produce graduates with enhanced skills, knowledge and research aptitude to carry out higher studies or research and development in the various industrial areas.
- To equip students with advance knowledge about various industrially important products.
- To makes students ready for immediate entry to the workplace with sound theoretical and basic experimental knowledge in the areas of various industries.
- To engender the substantial interest in the students to understand the concepts in chemical processing, engineering and industrial development of present era viz. Cosmetics and Perfumes Industry, Dyes and Pharmaceuticals, Pesticides, Soaps and Detergents, related multidisciplinary and diversified fields of chemical industry.
- To describe the industrial production of a number of important organic and inorganic compounds / chemicals and products of end use.

- To gain comprehensive knowledge of cutting-edge developments in a field of different chemical industries by discussions and exchange of experiences and knowledge.
- To develop proficiency in application of current aspects of industrial chemistry.

Course (CH-366): Polymer chemistry

T.Y.B.sc Polymer chemistry

After completing the course student will be able to

- The course offers the basic concepts of polymer, polymerization, classes of polymers, important properties, and poly(lactic acid) as a biodegradable polymer.
- The course also offers to study preparation, properties, and applications of industrially important selected polymers.
- The course will give chance to study various mechanisms of polymerization and learn different techniques of polymerization.
- The student will be able to understand glass transition temperature and factors affecting on it and various ways to express molecular weight of polymers.

Department of Chemistry

M.Sc.(Organic Chemistry)

Programme Outcomes

After successfully completing **M.Sc.(Organic Chemistry)** programme student will able to

PO1: To promote understanding of basic facts and concepts in Chemistry while retaining the excitement of Chemistry.
PO2: To make students capable of studying Chemistry in academic and Industrial courses.

PO3: To expose the students to different processes used in Industries and their applications.
PO4: To develop ability and to acquire the knowledge of terms, facts, concepts, processes, techniques and principles of subjects,
PO5: To inquire of new knowledge of chemistry and developments therein.

PO6: To develop proper aptitude towards the subjects.

PO7: To develop the power of appreciations, the achievements in Chemistry and role in nature and society.
PO8: To develop skills required in chemistry such as the proper handling of apparatus and chemicals.

Programme Specific Outcomes

After successfully completing **M.Sc.(Organic Chemistry)** programme student will

PSO1: Understand the significance of wave function and postulates of quantum mechanics.
PSO2: Able to explain the principles of electrode processes and apply them during Practical's.

PSO3: Analyze the rotational spectra of diatomic molecules and determine the bond length.
PSO4: Apply the radioactivity principles for various chemical and biological investigations.
PSO5: Analyze the given crystal structure and determine the indices of planes, inter-planer distances and type of crystal structure.

PSO7: Apply Knowledge basic principles and synthesis of nanomaterials. classification, composition and processing of cement, classification and composition of alloys,,types manufacture and applications of fertilizers.

PSO8: Ability to understand organic reactions like nucleophilic substitution, electrophilic substitution, nucleophilic addition, electrophilic addition and elimination..
PSO9: Students will be able to function as a member of an interdisciplinary problem solving team, Compare the Instrumental methods and non instrumental methods and there advantages.
PSO10: Develop the problem of detection and separation using analytical instruments.
PSO11: Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
PSO12: Students will be able to explain why chemistry is an integral activity for addressing social, economic, and environmental problems.

Course outcome

M.sc-I (Chemistry)

Course (CH-110): Physical chemistry

After successfully completing this course students will able to

- ***CO1-*** *Wave-particle duality of matter, Heisenberg uncertainty principle, Schrodinger equation. Operators: algebra of operators, commutative property, linear operators, Hermitian operator Hermite polynomials, variation principle, LCAO-MO, H^+ molecular ion, HMO theory and its application to ethylene and butadiene.*
- ***CO2-****Parent-daughter decay-growth relationships,Applications of radioactivity: Szillard - Chalmer's reaction, Elements of radiation chemistr, LET, Bremsstrahlung. Interaction of gamma radiation with matter: photoelectric effect, Compton scattering and pair production, units of measuring radiation absorption.*
- ***CO3-****Debye-Huckel theory ionic atmosphere, relaxation and electrophoretic effects, DHO equation, its validity and deviations, ionic strength, activity and activity coefficients of strong electrolytes,deviations and modifications,Transport number, Hittorf's method.*

- ***CO4-****Adsorption, Langmuir adsorption isotherm, BET theory, derivation of BET equation and its application, derivation of Gibbs adsorption isotherm.*

M.sc-I (Chemistry)

Course (CH-210): Physical chemistry

After successfully completing this course students will able to

- ***CO1-****State functions, Joule-Thomson effect: J-T experiment, Thermodynamic description of mixtures, Gibbs-Duhem equation, Maxwell relations, thermodynamic equations of state and their applications: J-T coefficient in terms expansion coefficient van der Waals gas, real gases*
- ***CO2-****Thermodynamic probability, Stirling approximation, Boatman distribution law, partition function and its significance, rotational partition, function, rotational energy and entropy from it, vibrational partition function, vibrational energy and entropy from it.*
- ***CO3-****Accounting for the rate laws,Michaelis- Menten mechanism, Lindemann-Hinshelwood mechanism, Collision theory of bimolecular gaseous reactions, Eyring equation for reaction between structureless particles, estimation of steric factor, thermodynamic aspects.*
- ***CO4-****Infrared spectroscopy, Born-Oppenheimer approximation, vibration-rotation spectra of linear polyatomic molecules and symmetric top molecules, influence of nuclear spin, breakdown of Born-oppenheimer approximation,Raman spectroscopy, rule of mutual exclusion,Electronic spectroscopy*

M.sc-I (Chemistry)

Course (CH-130): Inorganic chemistry

After successfully completing this course students will able to

- ***CO1-*** *de Broglie matter waves, Heisenberg uncertainty principle, Atomic orbitals, Shapes of s, p, d orbitals. Quantum Mechanical Approach: Schrodinger wave equation (no derivation), significance of ψ and ψ2, quantum numbers, radial and angular wave functions and probability distribution curves.*
- **CO2-** Linear tri-atomic molecules, Trigonal planar molecule, Tetrahedral Molecule, Trigonal pyramidal molecule, Angular Tri-atomic molecules
- ***CO3-****The 18 electron rule, Molecule orbital theory and 18 electron rule, Counting*
- electrons in complexes.Alkyl & aryl complexes Organometallic compounds in homogeneous catalysis.
- ***CO4-****Symmetry elements and operations, Symmetry planes, reflections, inversion centre.*
- ***CO5-****Structures of ionic solids, radius ratio rules, calculation of limiting radius ratio, classification of ionic structures – Ionic compounds of the type AX ,Lattice energy. The Born - Haber cycle, Applications of lattice energetics*

M.sc-I (Chemistry)

Course (CH-230): Inorganic chemistry

After successfully completing this course students will able to

- **CO1**- Hamiltonian operator, construction of Hamilatonian operator Aufbau and Paulis exclusion principles. Hund's multiplicity rule, electronic configuration of elements, effective nuclear charge and shielding; radial and angular wave functions and distribution curves.

- ***CO2-****Energy levels in an atom, coupling of orbital angular momenta, coupling of spin angular momenta, Hund's rule, Hole formulation, Laporte 'orbital' selection rule,spin selection rule, splitting of electronic energy levels and spectroscopic states. Spectra of* d^1 *&* d^9 *ions,* d^2 *&* d^8 *ions*

- ***CO3-VSEPR Theory, structures of molecules containing lone pair of electrons.***
  , Pentafluorotellurate (IV)anion, Tetrachloroiodate (III) anion, Nitrogen dioxide, nitrite ion and nitryl ion, phosphorustrihalides, carbonyl fluoride,

- ***CO4-****Ligand substitution reaction, The classification of mechanism, the shape of activated 18complexes, K1 pathway, Substitution in Octahedral complexes, Rate law and their interpretation, The activation of octahedral complexes, Base hydrolysis.*

- ***CO5-*** *Catalysis, Description of catalyst, Properties of catalyst, Homogeneous catalystCatalytic steps, Hydrogenation of alkenes, Hydroformylation, Monsanto acetic acid synthesis,Wacker Oxidation.*

M.sc-I (Chemistry)

Course (CH-150): Organic chemistry (Reaction Mechanisom and stereochemistry)

After successfully completing this course students will able to

- **CO1**- Chemical bonding and basis of reactivity,Bonding otaxanes, catenanes, cyclodextrins, cryptands, fullerenes, crown ethers,various structural effects, hard and soft acid and base concept,Aromaticity: Benzenoid and non-benzenoid compounds, Huckels rule, antiaromaticity, Application,annulenes, azulenes, Current concepts of aromaticity,

- ***CO2-*** *Sterochemical principles, enantiomeric relationship, distereomeric relationship, R and S, E and Z nomenclature in C, N, S, P containing compounds, Introduction of optical activity in absence of chiral centre (biphenyls, spiranes, allenes and helical structures) and with one and two chiral carbons,Conformational analysis of cyclic and acyclic compounds.*

- ***CO3-*** SN^1 *,* SN^2 *and* SN^i *reactions, Mechanism and stereochemistry, regioselectivity and*

stereo specificity of substitution reaction,Scope at saturated carbon, allylic carbon and vinyllic,Scope of nucleophilic substitution halides, oxygen, sulphur and nitrogen as nucleophole,Neighbouring group participation by pi and sigma bonds, Nonclassical carbocatios

- ***CO4-****Mechanistic and stereo chemical aspect of carbon-carbon multiple bonds and carbon heteroatom multiple bonds. Scope- The mechanism of electrophilic addition ADE2 mechanism. Structural effects and reactivity halogenations, hydrohalogenation, Hydration, Hydroxylation, Hydroboration, Epoxidation, Carbene addition Hydrogenation, Ozonolysis.*
- ***CO5-*** *Scope, The reaction mechanism E_1, E_2, E_1CB, E_1 versus E_2 and Elimination versus substitution,Anti and syn elimination, Stereo electronics factors,Dehydrohalogenation, Dehalogenation, Dehydration, Hoffmann and Saytzeffs elimination, Pyrolytic elimination.*

M.sc-I (Chemistry)

Course (CH-250): Organic chemistry (Synthetic organic chemistry and spectroscopy)

After successfully completing this course students will able to

- ***CO1-****Arenium ion mechanism, orientation and reactivity, energy profile diagram, ortho, para, ipso attack, orientation in other ring systems, naphthalene, anthracene, six and five membered heterocycles, diazonium coupling. Important reactions like Friedel crafts alkylation and acylation, Nitration, halogenations, formylation, cholromethylation, sulponation,Aromatic nucleophilic substitution*
- ***CO2-****Oxidation reactions CrO_3, PDC, PCC, $KMnO_4$, MnO_2, SeO_2, $Pb(OAc)_4$, Pd-C, OsO_4, mCPBA, O_3, $NaIO_4$, HIO_4*
- ***CO3-****Boranes and hydroboration reactions, R_3SiH, Bu_3SnH, MPV, H_2/Pd-C, Willkinsons, $NaCNBH_3$, NH_2NH_2, DIBAL*
- ***CO4-****Beckmann, Hofmann, Curtius, Smith, Wolff, Lossen, Bayer-villiger, Sommelet, Favorskii, Pinacol-pinacolone, Benzil-benzilic acid, Claisen, Cope, Fries.*
- ***CO5****-UV: Factors affecting UV absorption and interpretation of UV spectra,IR: Ideas about IR frequencies, interpretation of IR spectra,PMR: Fundamentals of NMR, CW and FT-NMR, factors affecting chemical shift, integration coupling (1^{st} order analysis),Introduction of CMR and mass spectrometry.*

M.sc-I (Chemistry)

Course (CH-290): General chemistry

After successfully completing this course students will able to

- **CO1**-Introduction to Chemometrics Mean and Standard deviation, distribution of random errors, reliability of results, comparing of means of two samples, paired t-test, the number of replicate
- ***CO2-****Instruments for Gas Liquid Chromatograph,Gas Chromatography,Applications of Gas Liquid Chromatography: Qualitative analysis, Quantitative analysis.*
- ***CO3****-Instrumentation: Mobile Phase Reservoirs and Solvent Treatment systems, Pumping systems, Sample injection systems, Columns for High Performance Liquid Chromatography, Detectors.*
- ***CO4-****Important Properties of Supercritical Fluids, Instrumentation and Operating variables, Supercritical - Fluid Cromatography Versus Other Column Methods, Applications.*
- ***CO5****-Instrumentation for Capillary Electrophoresis, Electroosmotic Flow, The Basis for Electrophoretic Separations, Applications of Capillary Electrophoresis*

M.sc-II(Organic Chemistry)

Course CH-350: ORGANIC REACTION MECHANISM

After successfully completing this course students will able to

- **CO1-**Acids and Bases: Factors affecting acidity and basicity,Electronegativity and inductive effect, resonance, bond strength,Determining mechanism of a reaction,Product analysis, kinetic studies, use of isotopes (Kinetic isotope effect – primary and secondary kinetic isotope effect). Detection and trapping of intermediates, crossover experiments and stereochemical evidence.
  .
- **CO2-**Reactive Intermediates and Concerted Reactions (Carbocation, Carbene, Nitrene, and Arynes) Organic reactive intermediates and their structure, methods of generation, structure, stability and important reactions involving carbocations, nitrenes, carbenes, arynes.

- CO3-Structural, thermochemical, and magnetic criteria for aromaticity, including NMR characteristics of aromatic systems. Delocalization and aromaticity. Application of HMO theory to monocyclic conjugated systems. Frost-Musulin diagrams. Huckel‘s (4n+2) and 4n rules. Aromatic and antiaromatic compounds up-to 18 carbon atoms. Homoaromatic compounds. Aromaticity of all benzenoid systems, heterocycles, azulenes, tropolones, fulvenes, sydnones, annulenes, aromatic ions and Fullerene (C60).Ester hydrolysis and

decarboxylation,

Cla

ssification, nomenclature and study of all eight mechanisms of acid and base catalyzed hydrolysis with suitable examples.Decarboxylation reaction.

- **CO4-**Generation of carbanion, kinetic and thermodynamic enolate formation, Regioselectivity in enolate formation, alkylation of enolates. Generation and alkylation of dianion, medium effects in the alkylation of enolates, oxygen versus carbon as the site of alkylation. Alkylation of aldehydes, ketones, esters, amides and nitriles. Chemistry of enolates and enamines, Kinetic and Thermodynamic enolates, Lithium and boron enolates in aldol and Michael reactions, Alkylation and acylation of enolates, Nucleophilic additions to carbonyls and stereochemical aspects through various models (Cram / Cram chelation / Felkin-Anh models); Organolithium, Organomagnesium, Organozinc, Organocopper reagents (restricted to 1,4-addition) in synthesis, Recall of Name reactions, their Mechanism and regiochemistry in the reactions under carbanion chemistry - Claisen, Dieckmann, Knoevenegal, Stobbe, Darzen, Acyloin & Benzoin condensations, Shapiro reaction, etc. with regioselectivity and stereoselectivity.

M.sc-II(Organic Chemistry)

Course CH-351: Spectroscopic Methods in Structure Determination

After successfully completing this course students will able to

- **CO1-** Advanced ideas of chemical shift, factors influencing chemical shift, Shielding &deshielding, chemical exchange, effect of deuteration (Driving force), spin-spin coupling, (n+1) rule, Stereochemistry, hindered rotation, vicinal and germinal coupling, long range coupling, factors affecting coupling constant –J., identification of complex spin-spin interaction between two, three, four and five nuclei (first order spectra), classification of spin system like AB, AX, AX_2, ABX, AMX, ABC, A_2B_2. Simplification of complex spectra, nuclear magnetic double resonance, spin decoupling, shift reagents, solvent effects, nuclear over-hauser effect (NOE) Magnetic Resonance Imaging (MRI): Introduction, working and Applications

- CO2- NMR Spectroscopy of some other Nuclei ^{15}N, ^{19}F, ^{31}P and D and ^{11}B.
  Types of ^{13}C NMR Spectra: Proton decoupled, un-decoupled, Off resonance, chemical shift, calculations of chemical shifts of aliphatic, olefin, alkyne, aromatic, heteroaromatic and carbonyl carbons, chemical shift features of hydrocarbons, effect of substituents on chemical shifts, factors affecting chemical shifts, Homo nuclear(^{13}C-^{13}C) and Hetero nuclear (^{13}C-^{1}H) coupling constants.

- CO4- Various methods of ionization (field ionization, field desorption, SIMS, FAB, MALDI, Californium plasma), different detectors [magnetic analyzer, ion cyclotron analyzer, Quadrupoule mass filter, time of flight (TOF)]. Mass Spectral fragmentation of

Organic compounds containing common functional groups, McLafferty rearrangement, Molecular Ion peak, metastable peak, isotope peaks, Examples of Mass spectral fragmentation of Organic compounds with respect of their structure determination.

- CO5- Problems based on joint application of U.V., I.R., NMR, CMR and Mass spectroscopy

Determination of structure of organic compounds from U.V., I.R., NMR, CMR and Mass spectra [Spectral Interpretation of compound containing maximum ten (10) carbon atoms]

M.sc-II (Organic Chemistry)

Course CH-352: Organic Stereochemistry

After successfully completing this course students will able to :

- CO1-Selectivity, enantioselectivity, diastereoselectivity, chemoselectivity, regioselectivity, determination of enantiomeric/diastereomeric excess, determination of optical purity, Racemic modificationand methods for resolution of racemic modification.Conformations of acyclic organic molecules (alkanes, alkenes, alcohol, aldehydes, ketones, esters and dienes)
- **CO2-** Asymmetric synthesis with chiral substrates - Cram‘s rule, FelkinAnh rule, Cram‘s chelate model, use of chiral auxiliaries, chiral reagents and catalysts in asymmetric synthesis.
  stereoselective aldol reactions (Zimmermann traxler model), asymmetric hydrogenation (BINAP), asymmetric epoxidation (+DET/-DET) and asymmetric dihydroxylation (DHQD) 2PHAL/(DHQ) 2PHAL
- **CO3-** Different shapes of cyclohexane and substituted cyclohexane ring, reactions associated with cyclohexyl skeleton.Mono, disubstituted cyclohexane-physical properties (optical activity/energetics), Sstereochemistry of cyclohexene and concerned reactions.
  Conformations in six member heterocyclic ring (O/N/S)
- **CO4-** Conformations of smaller, medium and larger rings,trans annular effect e, concept of I-strain. Conformational effects in larger rings, Anti butane segment, and allied reactions.
- **CO5-**stereochemistryofFused ring and Bridge rings (Bicyclic & polycyclic)

M.sc-II (Organic Chemistry)

Course CH-353: Free radical, photochemistry, Pericyclic reaction and their applications

After successfully completing this course students will able to :

- CO1-Formation, stability, types of free radical reactions, free radical substitution mechanism, cyclization mechanism, mechanism at an aromatic substrate, neighbouring group assistance and effect of solvent on reactivity.
  - .
- CO2-Jablons ki diagram, Fluorescence and Phosphorescence, Delayed Fluorescence, Quantum yield, Solvent effect, Stern-volmer plot, Photosensitization and Quenching process.Photochemistry of carbonyl compounds,
- CO3-Nature of transition (n → π*, π → π*, d-d transition and Charge transfer), Norrish type- I and Norrish type-II reaction, abstraction of γ-hydrogen in cyclic and acyclic compounds.
- CO4-Classification, Molecular orbital symmetry properties, three approaches: Co-relation diagram, FMO & PMO or ATS approach.Electrocyclic reactions,Con rotatory & Dis rotatory motions, 4n and 4n+2 & allyl system,Antarafacial & suprafacial additions, 4n, 4n+2 systems, Diels-Alder reaction and its stereochemistry, 2+2 addition of ketones, secondary orbital interaction in cycloaddition reaction, 1,3-dipolar cycloaddition and chelotropic reactions;Sigmatropic rearrangement;Suprafacial & antarafacial shifts of H and carbon moities, Claisen, Cope & aza cope, Ene reactions and Fluxional molecule.Application of pericyclic reactions.

M.sc-II (Organic Chemistry)

Course CH-450: Chemistry of Natural Products

After successfully completing this course students will able to :

- CO1-Natural products, primary and secondary metabolism, metabolites derived from mevalonates metabolites derived from Shikimic acid, secondary metabolism of amino acids.
- CO2-Structure, stereochemistry & biogenesis of Hardwickiic acid, Prostagandin: Classification, general structure, biological importance, Structure elucidation & total synthesis of PGE1
- CO3-Synthesis of Some Natural Products

- **CO4**-Classification, sources and biological importance of vitamin B1, B2, B6, folic acid, B12, C, D1, E (α-tocopherol), K1, K2, H (β- biotin), synthesis of the following:
- CO5 - Chemistry of enzymes: Introduction, nomenclature, classes and general types of reactions catalyzed by enzymes. Properties of enzymes: i) Enzyme efficiency/catalytic power ii) Enzyme specificity; Fischer‘s _lock and key‘ and Koshland _induced fit‘ hypothesis. Factors affecting enzyme kinetics: Substrate concentration, enzyme concentration, temperature, pH, product concentration etc. Reversible and irreversible

M.sc-II (Organic Chemistry)

Course CH-451: Synthetic Methods in Organic Chemistry

After successfully completing this course students will able to :

- **CO1-** (Hydroboration, Carbonylation), Si (Uses of Oraganosilane, Brook rearangment, Peterson's Olefination), Ni (Uses of Nickel carbonyl ,$Ni(COD)_2$), Pd (Heck, Suzuki, Stille, Sonogashira, Negishi, Buchwald- Hartwig couplings, Wacker process), Pt (Hydrogenation), Rh (Wilkinson's Catalyst and applications), Ru (Grubb's Catalyst, only Ring closing & Ring Opening metathesis), Co (Oxo process, Pauson Khand Reaction, Vollhardt co-trimerization)
- **CO2- Umpolung reactivity in organic synthesis,**
- **CO3-**Disconnection Approach: An introduction to synthons and synthetic equivalents,functional group interconversions.**One group Disconnections** :Disconnections of simple alcohols, simple olefins ,Aryl ketones, control, Disconnections of simple ketones & acids, Two group Disconnections : 1,3-Dioxygenated skeletons,-β-hydroxy carbonyl compounds, α-β unsaturated carbonyl compounds,1,3 dicarbonyl compounds,1,5 dicarbonyl compounds –Use of Mannich reaction**Two group Disconnections** : The 1,2 Dioxygenation pattern –α -hydroxy carbonyl compounds,1,2 diols, Illogical electrophiles ,1,4 Dioxygenation pattern - 1,4 dicarbonyl compounds ,γ hydroxy carbonyl compounds, other illogical synthons ,1,6 dicarbonyl compounds, pericyclic reactions , Heteroatoms & heterocyclic compounds
- **CO4-** Protection & deprotection of hydroxyl, carbonyl, amino and carboxylic acid functional groups & its applications. Solid phase peptide synthesis.
- **CO5-Click chemistry:** Introduction, Criteria for Click reaction. Sharpless azides cycloadditions,**Olefination reactions:** Tebbe, McMurry, Julia-Lythgoe, Nysted.**Fragmentaion reactions,**schenmoser, Grob.

M.sc-II (Organic Chemistry)

Course CH-452: Heterocyclic Chemistry, Chiron Approach and Medicinal Chemistry

After successfully completing this course students will able to :

- CO1- Heterocyclic Chemistry- Synthesis and Reactions.

- CO2- Introduction Basic concepts –Carbohydrates, amino acid , hydroxyl acids and terpenes. The concept of chiral templates and Chirones where in the carbon skeleton is the chiral precursor.Utilization of the basic concepts for retro synthetic strategy and synthesis of-a) (-) Pentenomycin. b) (R) and (S) Epichlorohydrin, c) (-) Multistriatin,.

- CO 3-Classification , Nomenclature, Sources, Concepts of prodrugs and soft drugs, Receptor, Therapeutic index, Bioavailability, Drug assay and Drug potency.Concept and definition of Pharmacophore. Basic pharmacokinetics: drug absorption, distribution,

metabolism (biotransformation) and elimination, Pharmacodynamics, –. Drug targets: enzymes and receptors. Competitive, non-competitive inhibitors , Physical and chemical parameters like solubility, lipophilicity, ionization, pH, redox potential, H-bonding, partition coefficient and isomerism in drug distribution and drug –receptor binding. Factors affecting Absorption, Distribution, Metabolism, Elimination and Toxicity.Structure-activity relationships.

- **CO4**-Procedures in drug design:
  Drug discovery without a lead: Penicillin
  Lead discovery: random screening, non-random (or targeted) screening.
  Lead modification: Identification of the pharmacophore, Functional group modification, Structure- activity relationship, Structure modification to increase potency and therapeutic index: Homologation, chain branching, ring-chain transformation, bioisosterism, combinatorial synthesis.
- CO5- SYNTHESIS AND PHARMACOLOGICAL ACTION OF FOLLOWING CLASS OF DRUGS

Programme Outcomes

After successfully completing B.Sc(Botany) Programme, students will be able to:

- PO1: To develop an aptitude towards plants and nature.
- PO2: To equip the students with the basic skills in identifying and labeling different plants
- PO3: To achieve the up-to -date knowledge of Medicinal plants and their uses for increased as boost of immune system.
- PO4: To know about conservation of Biodiversity and natural resources and in the protection of endangered plant species and other Botany dependent on them.
- PO5: To understand scope and importance of plant anatomy.
- PO6: To give exposure of techniques in embryology and embryo logical processes in various species in order to obtain data for solving problems of systematically and phytogeny.
- PO7: Students learn to carry out Practical work in field and in laboratory,they gain and develop their Practical skill and practical temparament.
- PO8: Understand the impact of the plant diversity in societal and environmental contexts and demonstrate the knowledge of ,and need for sustainable development.

Programme Specific Outcomes-

After successfully completing B.Sc(Botany) programme,students will:

- PSO1: To understand the fundamental nature of plant ecology.
- PSO2: To study plant communities and ecological adaptation in Plants
- PSO3: Knowledge about botanical regions of India and vegetation types of Maharashtra.
- PSO4: To Study the diversity of Angiospermic Plants .
- PSO5: To study various tissue system ,how primary and secondary growth occure in plant.
- PSO6: To study how occurred the sequential steps during developing embryo through pollination, fertilization, formation of endosperm process.

Course Outcomes-

F.Y.B.Sc Botany (CBCS)

Course(Bot-102)Sem -1.(Plant taxonomy)

After successfully completing the course,students will able to:

- CO1: Define,scope and importance and function of plant ecology.
- CO2: Explain taxonomic hierarchy related principles and rule(ICN) ,Ranks of classification, Binomial nomenclature,author citationand rejection.
- CO3: System of classification,types,outline of Bentham and Hookers system, merits and demerits.

- CO4: Study of plant families w.r.t .systematic position,general characters,distinguishing characters and economic importance of Malvaceae,Solanaceae,Euphobiaceae,Cannaceae.
- CO5: Define,technique and function of Herbarium and importance of Hebaria.
- CO6: Discuss botanical gardens, special features of Indian Botanical garden,Kolkata and Royal botanical garden, kew,England.
- CO7: Discss modern trends in taxonomic evidences from palynology,cytology and phytochemistry.
- CO8: Define and application of Numerical taxonomy.

Course(Bot-103)--Lab.course based on Bot-101and -Bot 102.

- CO1: Describe Angiospermic plants with the help of morphological characters.
- CO2: Study plant families w.r.t systematic position,morphological characters,floral formula and floral diagram of Malvaceae,Solanaceae.
- CO3: Family Euphorbiaceae
- CO4: Family Cannaceae.
- CO5: Preparation of Artificial key based on vegetative and reproductive characters.
- CO6: Study Herbarium and its techniques.

Course(Bot-202) Sem.2 (Plant ecology)

After successfully completing the course , students will be able to:

- CO1: Define,historical background and scope and importance of plant ecology
- CO2: Discuss Abiotic ,Biotic and Edaphic ecological factors,Shelford law of tolerance and adaptation of hydrophytes.
- CO3: Discuss plant community their characters,species diversity,growth form ,structure and dominance,ecological succession.
- CO4: Defination of ecosystem,their components and types,Food chain ,food web,ecological pyramids production and productivity,Biogeochemical cycle I.e Carbon and Nitrogen.
- CO5: Basic principles of phytogeography,Batanical regions of India,Vegetational types in Maharashtra,Endemism cause and types.

Course (Bot-203)--Lab Course based on Bot-201and Bot-202.

- CO1: Demonstration ,working and uses of the Soil thermometer,maximum and minimum thermometer,Cup anemometer,Hair hygrometer and Rain gauge.
- CO2: Determination of pH and analysis of two soil samples for Carbonate,Nitrates,Sulphate.
- CO3: Morphological adaptations of hydrophytes and xerophytes.
- CO4: Study of Biotic interaction with suitable examples I.e Stem and Root parasite,Epiphytes,and Insectivorous plants.

- CO5: Determine Frequency,Density of herbaceous vegetation by listcountquadrate method.
- CO6: Field visit.

S Y B Sc.(Botany)
Course(Bot-301) Sem.3 (Plant Anatomy)
After successfully completing the course, students will be able to:

- CO1: Define,scope and importance of plant anatomy.
- CO2: Define plant tissues,Meristematic tissue,classification based on position and origin types-simple and complex.
- CO3: Protective tissue system ,Epidermal tissue system and its defination, function.Types of Stomata - Ranunculaceous,Cruciferous,Rubiaceous,Caryophyllaceous,and Graminaceous.
- CO4: Explain Primary structure of Dicot.and Monocot. root ,stem and leaf.
- CO5: Explain Secondary growth,Vascular cambium, their structure and functions,Sec.growth in root and stem of Sunflower, Heartwood and sapwood.

Course-(Bot-303)Lab course based on Bot-301and Bot-302.

- CO1: Study of meristematic and simple tissue with help of P.S/Photograph.
- CO2: Macerated xylene and phloem elements by P.S/Photograph.,study of Dicot leaf and monocot leaf by P.S.
- CO3 : Study of Primary structure of Dicot stem.
- CO4: Study of Primary structure of Monocot stem.
- CO5: Study of primary structure of Dicot root and Monocot.root P.S.
- CO6: Study of Secondary growth structure in Dicot stem.
- CO7: Study of Secondary growth structure in Dicot .root.
- CO8: Study of Trichome and Stomata with help of locally available plants.

Course-(Bot-401) Sem-4 (Plant Embryology)
After successfully completing the course students will able to:

- CO1: Introduction, Define,scope and importance of embryology.
- CO2: Explain ,Microsporangium-Structure of another, tapetum types,functions,microsporogenesis, structure of pollen ,types of pollen tetra
- CO3: Explain Megasporangium- structure of ovule,Types of over,Types of embryo sac.
- CO4: Mechanism of pollination study and Fertilization process and significance of double fertilization.
- CO5: Define,structure and function, types of endosperm.
- CO6: Defination,Structure of Dicot embryo and Monocot embryo.
- CO7: Seed structure and mechanism of dispersal by wind ,by water,by animal etc.

- CO8: Discuss Apomixis and Ployembryony and their types.

Course(Bot-403) Lab course based on Bot-401 and Bot-402.

- CO1: Study of T.S.of Microsporangium and types of tapetum with the help of P.S.
- CO2: Study of types of Ovules with the help of P.S./Photograph.
- CO3: Mounting of Embryo from suitable seeds.(Cucumis/Cymopsis/CItrus)
- CO4: Study of different kinds of embryosac with the help of P.S./Photograph.
- CO5: Study of structure of Dicot.and Monocot Seed.
- CO6: Seed dispersal mechanism--Winged,Parachute , Hair.
- CO7: Seed dispersal mechanism -Floating ,Animal and Sticky .

Class F. Y. B. Sc **Subject: Physics**

Course Title: Dynamics and Elasticity **Course 102**

Program Outcome:

After completing the course student get acquaintaned about detailed information of various Physical phenomena in dynamics and elasticity like Gravitation, Oscillation, Elasticity and Viscosity.

Program Specific Outcome:

Chapter 1: Gravitation

In this chapter students get acquainted about Newton's laws of gravitation, Kepler's laws, Satellites, their various motions, orbits concept of weightlessness and GPS in detail so that he could apply this knowledge in practical life..

Chapter 2: Oscillations:

In this chapter students get detailed theoretical knowledge of Simple Harmonic motion and energy of oscillating particle with derivations

Chapter 3 Elasticity:

In this chapter students get acquainted to various fundamental aspects of elasticity. Relation between modulii, Poisons ratio, work done in and by substance under elastic deformations and Moment of Inertia

Chapter 4: Viscosity

In this chapter students get acquainted to various fundamental aspects of Viscosity, Concept of fluid flow its dynamics energy and applications based on Bernoulli's theorem like venturimeter, Poiseuillies formula and derivation.

Class F. Y. B. Sc **Subject: Physics**

Course Title: Dynamics and Elasticity **Course 202**

Program Outcome: :

After completing the course student get acquaintaned detailed basic knowledge of Electricity and Magnetism On the basis of this detailed knowledge and methodology, student could familiar with the skill necessary for problem solving in Physics. Application of use of knowledge of Electricity and magnetism in life and to create the scientific temperament amongst the students

Program Specific Outcome:

Chapter 1: Capacitance and Dielectrics

In this chapter students get detailed knowledge of various types of capacitance in terms of theory and analytical manner. Various fundamental aspects related to capacitance, their energies and types of capacitors and dielectrics and related aspects and theorems

Chapter 2: Magnetism

In this chapter students get detailed theoretical knowledge about magnetic parameters, types of magnetic materials, Biot –Savarat law and its applications, Ampere circuital law

Chapter 3 Electromagnetic Induction

In this chapter students get acquainted to laws of electromagnetic induction, Concept of self and mutual inductance in detail, and energy stored in magnetic field.

Chapter 4: Maxwell's equations and Electromagnetic wave propagation

In this chapter students get acquainted to various fundamental aspects electromagnetic wave propagation through vacuum and medium and their derivation with reference to Maxwell's equations.

Class S. Y. B. Sc **Subject: Physics II**

Course Title: Electronics - I Course 302- A

Program Outcome:

After completing the course student get detailed knowledge of basic concepts of Electronics and related experiments based on theory. After study of this course students will be able to apply concept of use of knowledge of linear and Digital Electronics in real life. Able to design circuits problems shooting in circuits and create the scientific temperament.

Program Specific Outcome:

Unit 1: Semiconductor diodes

In this chapter students get acquainted about types of semiconducting materials, n and p type semiconductors, forward and reverse bias of diodes p-n Junction diode in detail and Principle, construction, working and characteristics of various types of diodes.

Unit 2: Rectifiers and Power supplies

In this chapter students get detailed knowledge of types of rectifiers, Ripple factor, Efficiency of rectification Concept and types of filters, Unregulated and regulated power supply in detail.

Unit 3 Bipolar Junction Transistor

In this chapter students get acquainted to various fundamental aspects of B. J. T, Their construction and working various types of currents and configurations, current gains and relation between current gains. And concept of load line

Unit 4: Digital Electronics

In this chapter students get acquainted to various fundamental aspects of Digital Electronics. Various types of Logic gates, their combinations, De-Morgan theorems Boolean laws K Maps Various types of combinational logic circuits

Class S. Y. B. Sc Subject: Physics VI

Course Title: Optics and LASERs Course 402

Program Outcome:

After completing the course student get acquaintaned about detailed knowledge of basic concepts of Optics and LASERs and related experiments based on theory. Also students will be able to apply concept of use of knowledge of Optics and LASERs in real life problems and create the scientific temperament.

Program Specific Outcome:

Unit 1: Geometrical Optics

In this chapter students get acquainted about types of various types of lenses, aberrations in lenses and method s to minimize them including derivations, and could capable to design achromatic lens system practically.

Unit 2: Interferance

In this chapter students get detailed knowledge concept of interference, Wave front, Intensity distribution and its types Fresnel Biprism Stokes treatments, Interference in thin films. Fringes of equal thickness and equal inclination. Newton's rings, theory, derivations and various applications.

Unit 3 Diffraction

In this chapter students get acquainted to Diffraction, Concept an types, Fresnel and Fraunhoffer Diffraction and related aspects in detail

Unit 4: Polarization

In this chapter students get acquainted to Concept of Polarization,, Brewster's law, Malus's Law Double refracting crystals Positive and negative crystals, Nicol Prism, Optical activity, Polarimeter or saccharimeter.

Unit 5: Non-Linear Optics

In this chapter students get acquainted to Principle of LASER, basic aspects related to LASER, Types of LASER and Applications of LASER. Student could able to know detailed knowledge of basic types of LASERs and their applications in life.

Dept. of Physics

Year 2018-19

F.Y.B.Sc

Paper-1 Sem-1

BASIC MECHANICS

UNIT 1:VECTORS

Students can explain - Vector algebra , scalar and vector products,derivatives of a vector with respect to a parameter

UNIT 2:ORDINARY DIFFERENTIAL EQUATIONS

Students can explain -Types of differential equations,linear and non linear differential equations,first order and second order homogeneous differential equations with constant coefficients.

UNIT 3: LAWS OF MOTION

Students can explain - Frames of reference,Newton's laws of motion,Dyanamics of system of particles,Center of mass

UNIT 4: MOMENTUM AND ENERGY

Students can explain - Conservation of momentum, Work and energy,conservation of energy,motion of rockets

UNIT 5:ROTATIONAL MOTION

Students can explain - Angular velocity and angular momteum,Torque,Conservation of angular momentum

Students can explain vectors ,differential equations ,Laws of motions,Momentum,Energy,Rotational motion,Torque.

Paper-1 Sem-2

ELECTRICITY AND ELECTROSTATICS

UNIT 1: VECTOR ANALYSIS

Students can explain - Gradient, Divergence,Curl and their significance,line,surface and volume integral of vector fields,Gauss divergence theorem and Stoke's theorem of vectors

UNIT 2: NETWORK THEOREMS IN CURRENT ELECTRICITY

Students can explain - Kirchhoff's laws and loop analysis by Kirchhoff's laws, Thevenin's theorem ,Norton's theorem,Maximum power transfer theorem,Electric power ,electric bill calculations,Joule's law.

UNIT 3: ELECTROSTATICS

Students can explain - Electrostatic field ,Electric flux,Gauss's theorem of electrostatics with its applications,Electric potential as line integral of electric field.

Students can explain Gradient,Divergence,Curl,Kirchhoff's laws, Thevenin's theorem ,Norton's theorem,electric bill calculations,Joule's law, Gauss's theorem of electrostatics with its applications,Electric potential as line integral of electric field.

S.Y.B.Sc
Paper-1 Sem-1
WAVES AND OSCILLATIONS

Unit - I: Composition of two S. H. M.’s

Students can explain-Composition of two S.H.M.s of equal frequencies along same line of vibration,Composition of two S.H.M.s of equal frequencies acting at right angles with different cases,Composition of two S.H.M.'s right angles to each other(time period in the ratio 1:2), Lissajous figures - demonstration by mechanical, optical and electrical methods.

Unit - II: Free and damped oscillations

Students can explain-Undamped free oscillations, Damped free oscillations, Differential equation of damped harmonic oscillator and its solution- discussion of three different cases, Logarithmic decrement, Energy equation of damped harmonic oscillator, Power dissipation, Quality factor.

Unit - III: Forced oscillations

Students can explain-Idea of forced oscillations, Resonance and its types, Differential equation of forced oscillation and its solution, Amplitude of forced oscillations, Amplitude resonance, Sharpness of resonance, Velocity Resonance, Energy in forced oscillations, Power dissipation, Band width and
quality factor.

Unit -IV: Sound

Students can explain-Sound intensity, Loudness, Pitch, Quality and timber, Acoustic intensity level measurement, Acoustic pressure and its measurement. Classification of sound frequencies,Generation of ultrasonic waves by Piezoelectric oscillator (using transistor) and Magnetostriction oscillator (using transistor), Detection of ultrasonics waves, Applications of ultrasonic waves.

Unit -V: Doppler Effect

Students can explain-Doppler effect, Doppler effect in sound, Expression for apparent frequency (different cases when source, observer and medium are in relative motion),Asymmetric nature of Doppler effect in sound, Doppler effect in light, Symmetric nature of Doppler effect in light, Applications of Doppler effect in sound and light.

Students can explain Composition of two S.H.M.s with different cases,Lissajous figures,free oscillations and forced oscillations,quality factor,Energy in forced oscillator,Piezoelectric and Magnetostriction oscillator Asymmetric nature of Doppler effect in sound, Doppler effect in light, Symmetric nature of Doppler effect in light.

Year 2018-19
S.Y.B.Sc
Paper-1 Sem-2
MODERN PHYSICS

Unit 1: Solar Energy

Students can explain-conventional and non-conventional energy sources, solar energy option,principle of photothermal conversion, flat-plate collector, liquid flat plate collector: construction,working and energy balance equation only, principle of photovoltaic conversion. solar cell, types of solar cell- Homojuction (PN solar cell), Hetrojunction solar cell (PIN solar cell and MIS solar cell), I-V characteristics of solar cell, Parameters of solar cell, Basic photovoltaic system for power generation, solar cell modules, merits and demerits of photovoltaic solar energy conversion.

Unit 2: LASER

Students can explain-Principle of LASER, Characteristics of LASER , Basic staeps required to form a LASER absorption, spontaneous emission, stimulated emission, Metastable state, population inversion,optical pumping, Types of LASER- Ruby LASER, He-Ne LASER, Applications of LASER (list only), Basic idea of Hologram, construction and reconstruction of Hologram .

Unit 3: Bohr's and Sommerfield theories of hydrogen atom

Students can explain-Introduction of atomic spectra, Inadequacy of classical planetary model of hydrogen atom, Bohr's theory of hydrogen atom, Extension of Bohr's theory, Experimental verification of discrete atomic energy levels, correspondence principle, Bohr's Sommerfield model and relativistic effects, Limitations of quantum mechanical model.

Unit 4: Matter Waves

Students can explain-Wave particle duality of matter, de-Broglie hypothesis, Expression for matter waves,Electron diffraction , Davission and Germer experiment, concept of wave group , phase velocity, group velocity, particle velocity and relations between them, Uncertainty principle, Thought experiment (Gamma ray microscope), different forms of uncertainty principle, applications of uncertainty principle (Non existence of electron in nucleus, determination of ground state of electron and size of hydrogen atom).

Students can explain solar energy option, Photovoltaic conversion,different types of solar cells, Principle of LASER, Characteristics of LASER, spontaneous emission, stimulated emission,types and applications of LASER, Basic idea of Hologram, construction and reconstruction of Hologram , Bohr's theory of hydrogen atom, correspondence principle, Bohr's Sommerfield model and relativistic effects, de-Broglie hypothesis, Davission and Germer experiment, Uncertainty principle, Thought experiment (Gamma ray microscope), applications of uncertainty principle (Non existence of electron in nucleus, determination of ground state of electron and size of hydrogen atom).

DEPARTMENT OF COMPUTER SCIENCE

B. Sc. (Computer Science)

Programme Outcomes

After successfully completing **B.Sc. (Computer Science)** Programme students will be able to:

PO1: Use creativity, critical thinking, and analysis and research skills to solve theoretical and real-world problems in computer science using Computer Languages.

PO2: Work effectively both individually ,as member of team as well as lead the team.

PO3: Discuss software development fundamentals, including programming, data structures, algorithms and complexity.

PO4: Illustrate the concepts of systems fundamentals, including architectures and organization, operating systems, networking and communication.

PO5: Gain the knowledge about software engineering fundamentals, including software analysis and design, evaluation and testing, and software engineering processes.

Programme Specific Outcomes

After successfully completing **B. Sc. (Computer Science)** Programme students will

PSO1: Apply knowledge of computing and mathematics appropriate to the discipline

PSO2: Develop problem-solving abilities using computer.

PSO3: Design the application using programming languages.

PSO4: Ability to understand the principles and development methodologies of computer systems.

Course Outcomes

F. Y. B. Sc. (Computer Science)

CS-DSC 1 A:

Course (CS-101): Essentials of Computer

After successfully completing this course, students will be able to:

- CO1: Define Input, Output Devices, Primary and Secondary memory.;
- CO2: Express LAN, WAN, MAN Wired Network, Wireless Network, MANET, Internet;
- CO3: Indication of virus infection, Types of Viruses: Boot Sector Virus, Programs Virus,

Macro Virus, Multipartite Virus, Polymorphic Virus, Worms, Malware: Spyware, Adware, Anti-Virus;

- CO4: Explain what is booting POST, Bootstrap, Boot Drive;
- CO5: DOS, Windows, Linux ;
- CO6: DOSCommands: Copy, Del, Ren, Md,Cd, Rd, erase, Dir, MKDir, Date and Time, Copycon;

Course (CS-102) C Programming Language-I

After successfully completing this course, students will be able to:

- CO1: Compilation, Execution and Debugging of C-program List the flow chart and algorithm for given problem;
- CO2: Discuss the programming language tools and history of C programming;
- CO3: Define C Tokens like keywords, identifiers and operators;

- CO4: Explain input, output, conditional and iterative statements in C programming;
- CO5: Interpret C programs using array and functions;
- CO6: Explain string and pointer concepts of C programming;
- CO7: Illustrate user defined data types including structures and unions to solve the problems;
- CO8: Discuss command line arguments and files handling in C programming

Course (CS-103): LAB Course on Essential of Computer and C Programming

- After successfully completing this course, students will be able to:
- CO1: Install Software and operating system Like Windows XP, Win 7,Linux
- CO2: List the basic LINUX & DOS general purpose commands
- CO3: Installation of LAN in laboratory, Sharing of Computer and printer in Network;
- CO4: Use the decision making statements like if, if-else, nested if and switch case in C program;
- CO5: Demonstrate while, do-while, for, nested loops of C-Program;
- CO6: Apply standard library functions in menu driven program in C- Language;
- CO7: Solve C Program using array, pointer, string and functions;
- CO8: Demonstrate C-program using structure and Union;
- CO9: Discuss the concepts of file handling command line arguments in C-Programming.

S. Y. B. Sc. (Computer Science)

Course COMP 211 : Data Structure-

After successfully completing this course, students will be able to:
CO1: Discuss fundamental concepts of Data Structure, abstract data type, and algorithm analysis;
CO2: Summarize different searching and sorting techniques using array;
CO3: Describe linear data structure Stack and its application;
CO4: Explain linear data structure Queue and its types (Linear Queue, Circular Queue, and Priority Queue);
CO5: Summarize different types of Linked List (singly linked list, doubly linked list, linear and circular linked list);
CO6: Discuss non-linear data structure Tree using operations like searching, insertion, deletion, and traversing mechanism;
CO7: Explain non-linear data structure Graph using operations like traversing mechanism;

Course COMP 212 : OOAD & Introduction to C++

After successfully completing this course, students will be able to:
CO1: depict the applications and need of Object Oriented Programming language;
CO2: Discuss basic concepts of C++ programming language;
CO3: Describe the concepts of classes, objects, member function, constructors and destructor;
CO4: Explain the need of operator overloading, inheritance, polymorphism, and virtual functions;
CO5: Explain managing input- output, and file in C++;
CO6: Explain exceptions handling and templates in C++.

Course (CS-213): Data structures Practical and C++ Practical (Lab Course- I)

After successfully completing this course, students will be able to:
CO1: Use different searching and sorting methods for basic data structures programs;
CO2: Solve simple mathematical problems using data structure;
CO3: Implement various data structures viz. Stack, Queues and Linked Lists;
CO4: Implement complex data structures like trees and graphs;
CO5: Demonstrate programs by using basic object oriented concepts in C++;
CO6: Apply to overload functions and Operators in C++;

CO7: Illustrate programs by applying the object oriented concepts such as (Inheritance, Virtual Function.)
CO8: Apply of file handling in C++ programs. Class Templates and Function Templates

T. Y. B. Sc. (Computer Science)

Course (CS-311): System Programming and Operating Systems-I

After successfully completing this course, students will be able to:
CO1: Describe the different types of Programming Environment, purpose of editors and types of editors;
CO2: Discuss the data structures of Assembler;
CO3: Explain Data Structures of Macro pre-processor;
CO4: Illustrate the concepts of Interpreter, Compiler Linker and Loader
CO5: Explain types of Debugger and demonstrate how to debug the program;
CO6: Describe the Operating system as system software and types of system calls.

Course CS-312: Database Management System

After successfully completing this course, students will be able to:
CO1: Recall the integrity constraints on a database using RDBMS;
CO2: Explain the concepts of stored procedures, stored functions, and cursors triggers in PL/PGSQL programming language;
CO3: Explain the concepts of transactions processing, concurrency control and recovery;
CO4: Interpret the concurrency control techniques;
CO5: Describe the concepts of crash recovery;
CO6: Discuss the data security methods for database protection;
CO7: Summarize the knowledge about client server architecture

Course (CS-313): Software Engineering

After successfully completing this course, students will be able to:
CO1: Recall fundamental principles underlying Object-Oriented software design like class, Object, Instance Polymorphism and inheritance;
CO2: Give the original examples of basic and advance structural modelling things like class, objects;
CO3: Explain basic behavioural things like use case diagram, interaction diagram and state chart diagram;
CO4: Explain methods of object oriented analysis and object oriented designing;
CO5: Use architectural modelling like component and deployment diagram;
CO6: Define object oriented testing strategies.

Course (CS-314): Computer Graphics

After successfully completing this course, students will be able to:
CO1: Define computer graphics, components of computer graphics, and Open GL,
CO2: List input and output devices, graphical user interfaces in Open GL, graphics presentation,
CO3: Explain raster scan graphics methods of line drawing algorithms, polygon filling algorithms, scan conversion,
CO4: Describe basic transformation and window to viewport co-ordinate transformation. Setting window and viewport in OpenGL,
CO5: Use line clipping and polygon clipping algorithms,

Course (CS-315) Programming in VB.NET

CO1: Interpret fundamental concept of web techniques
CO2: Discuss concept of user define function & predefine functions of strings;
CO3: Explain types of array & predefine function of array;

CO4: Illustrate object oriented concepts in VB.NET;
CO5: Describe file & directory handling operation & predefine function of file & directory;
CO6: Explain the database enable web pages.

Course (CS-316): Programming in Java-I

After successfully completing this course, students will be able to:
CO1: Define simple java programs using data types, final variable and arrays;
CO2: Explain classes using constructor and array of objects;
CO3: perform java programs using classes and objects;
CO4: Illustrate the concept of inheritance and interfaces;
CO5: implements exception handling techniques in java programs;
CO6: Demonstrate GUI using Swing and AWT methods;
CO7: Demonstrate basic applet using java.

Course CS-Lab-301 Lab on System Programming Practical

After successfully completing this course, students will be able to:
CO1: Perform the different Line editor commands;
CO2: Illustrate the SMACO program;
CO3: Demonstrate the concepts of Assembler and Macro;
CO4: Use concept DFA to check particular Language accepts or not;
CO5: Illustrate different the shell commands;
CO6: Perform the different CPU scheduling algorithms;
CO7: Demonstrate deadlock avoidance algorithm to find the Safe Sequence;
CO8: Use the different page replacement algorithms to find page fault.

Course CS-Lab-303 Programming in Java Practical

After successfully completing this course, students will be able to:
CO1: Define simple classes using IDE – Eclipse;
CO2: Explain examples of classes using array of objects and packages;
CO3: implement inheritance and interfaces in java;
CO4: Solve problems using exception handling mechanism in java;
CO5: perform Input/output operations using console and files;
CO6: Apply AWT and Swing to create GUI in java;
CO7: Execute queries on tables using JDBC (Java Database Connectivity);
CO8: Define and execute simple servlet program;
CO9: Illustrate the JSP (Java Server Pages) programs;
CO10: Demonstrate multithreading using Java.

Dadasaheb Devidas Namdeo Bhole College, Bhusawal

Department of Commerce and Management

B.Com.

Program Outcomes:

After successfully completing B. COM. Program, students will be able to

PO1: After completing three years in B. COM. Program, students would gain complete knowledge about the fundamentals of commerce, trade and finance.
PO2: The commerce, trade and finance centric syllabus offers a number of specializations and a practical approach which would able the student to face the modern-day challenges in commerce and management.
PO3: The perspective of the course is such that it is inclusive of a number of value-based and job oriented courses that ensures that the students are trained to be up-to-date. The advanced accounting courses beyond the basic level are beneficial for the affective development of students.
PO4: The courses are designed such that the students would be able to produce the basic commerce and management concepts of business laws, taxation, soft skills and they would be well-versed in practical applications of computer accounting.

Program Specific Outcomes:

After successfully completing B. COM. Program, students will be able to

PSO1: Students will gain through systematic and subject skills within various disciplines of commerce, business, accounting, costing, auditing, marketing and economics.
PSO2: Students will learn relevant, financial, corporate and advanced accounting, career skill for quantitative and qualitative knowledge to their future career in business.
PSO3: Students will be able to recognise features and roles of businessmen, entrepreneur and managers which will help them to acquire the required skills and react accordingly when presented with challenges.
PSO4: Students will be able to prove their skills with the ability to participate in competitive exams like CA, CS, ICWA and other similar exams.
PSO5: Students will acquire abilities like effective communication, decision-making, problem-solving in day-to-day business affairs.
PSO6: Students can acquire practical skills to work as tax consultant, audit assistant, and other financial services.

COURSE OUTCOMES

F.Y.B.Com.

1. Financial Accounting and Costing

CO1: Students would get a detailed overview of the various accounting standards.
CO2: Students would learn the gradual realisation and piecemeal distribution of cash on dissolution of partnership firm by different methods.
CO3: Students would be able to carry out the accounting procedure of amalgamation of partnership firms.
CO4: Students would be able to covert partnership firm into a limited company.
CO5: Students would prepare final account of sole trader and partnership firm from single entry system.
CO6: Students would have an in-depth knowledge of cost accounting and gain the ability to prepare cost sheets including quotation and tender.
CO7: Students would have an understanding about the accounting for dependent branches.
CO8: Departmental account, basis of allocations of common expenses among different departments and preparation of final account.
CO9: Accounting for consignment, transactions in consigner and consignee groups
CO10: Higher purchase accounting, calculation of interest, cash prize, accounting entries in the books of high purchaser and higher vendor
CO11: Accounting for investment, cum interest and ex interest, purchase, sales of securities
CO12: Importance of material accounting, economic order quantity, preparation of store ledger account.

2. Computing Skills

CO1: Introduction and uses of the internet, www, browser, search engine, webpage, email
CO2: Word, Excel, PowerPoint
CO3: Introduction to computerized accounting and Tally
CO4: Voucher entry, sales purchases, debit note, credit note, saving the voucher
CO5: Extracting trial balance, balance sheet, closing stop entry, profit and loss account

3. Quantitative techniques

CO1: Commercial arithmetic, calculation of interest, types of annuity
CO2: Mathematical logic, law of excluded middle, conjunction, negation
CO3: Permutation and combination – meaning and fundamental principles
CO4: Sets – meaning, method, types and operation
CO5: Introduction to statistics, samples, data, variable, applications and limitations of statistics

CO6: Classification and tabulation of data, construction of table
CO7: Measures of Central Tendency, arithmetic mean, mode, median
CO8: Measures of Dispersion, absolute and relative measures, mean deviation, standard deviation

4. **Modern Office Management**

CO1: Meaning, objective, importance of office, function of office, paperless office
CO2: Concept, scope, nature, elements and functions of office management
CO3: Meaning, importance of office location, office layout and recent trends
CO4: Concept of office environment, importance and factors affecting office environment
CO5: Modern office system – importance, designing, advantages, limitations and recent trends in office systems
CO6: Importance, objective of office routine, flow of work
CO7: Importance and selection of office appliances and machine. Utility of thumb machine, internet, WiFi, CCTV
CO8: Mail service and its management, inward and outward mail, modern mail services
CO9: Record management, importance and principles of record management, sources and role of paperless office
CO10: Office employees' relation, human relation in office, staff welfare, health and safety
CO11: Purpose and types of office meeting, meeting documentation
CO12: Need, sources, types of office manual

5. **Marketing and Advertising**

CO1: Traditional, modern, green marketing, marketing mix, product life-cycle
CO2: Meaning, need of consumer behaviour, factors, theories and buying motives
CO3: Objective and importance of service marketing, classification, problems of service marketing
CO4: Recent trends in marketing, e-business, telemarketing, virtual and multi-level marketing
CO5: Advertising media, print, electronics, outdoor media, media mix and media scheduling
CO6: Advertising copy, types of copy writing, print copy
CO7: Advertisement layout, components and factors affecting advertising layout

S.Y.B.Com.

1. Business and Tax Laws

CO1: Describe the legal system and the legal environment of business
CO2: Describe the relationship of ethics and law in business
CO3: Define relevant legal terms in business
CO4: Explain basic principles of law that apply to business and business transactions
CO5: Describe business law in the Indian context
CO6: Describe current law, rules and regulations related to settling business disputes
CO7: Understand different technical terminology used in this act
CO8: Discuss and consult business on related issues of business laws

2. Business Management

CO1: To introduce the concept of management and modern management practices.
CO2: To understand leadership skills and communication skills.
CO3: To understand the planning and decision making in business management.
CO4: To understand the new trends in management.
CO5: To understand controlling, techniques of control and leadership.
CO6: To understand coordination, business forecasting and operation research.
CO7: To understand the concept, principal, importance, technique of direction.

3. Corporate Accounting and Costing

CO1: A comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner's equity
CO2: The ability to account for a range of advanced financial accounting issues
CO3: The ability to prepare consolidated accounts for a corporate accounting
CO4: The ability to understand computerized accounting procedure
CO5: The ability to know the accounting for underwriting of shares and bonus shares and issue of equity shares
CO6: To understand the procedure of redemption of preference shares and debentures
C07: To understand the accounting for labour and allocation of overheads

4. Computing Management

CO1: Demonstrate a basic understanding of computer hardware and software and problem solving skills.
CO2: Apply logical skills to programming in a variety of languages and utilize web technologies.
CO3: Present conclusions effectively, orally, and in writing.

CO4: Demonstrate basic understanding of network principles.

5. **Business Communication**

CO1: Apply the skills that are the focus of this program to business scenarios.
CO2: To understand concept, process, importance and objective of communication
CO3: To develop awareness regarding new trends in business communication
CO4: To acquired communication skill and study of various types of business letters.
CO5: To study the modern technology in communication

6. **Business Entrepreneurship**

CO1: To understand different methods of business opportunities and characteristics of business opportunities during entrepreneurial process.
CO2: To understand different methods to minimise uncertainties at different stages of entrepreneurial process.
CO3: To understand dynamics of how team develops and functions as well as the various types of conflicts that can arise during team work.
CO4: To understand the product or service to market.
CO5: To understand the woman and rural entrepreneurship.

7. **Production and Operation Management**

CO1: To introduce production, operation, production management and types of production.
CO2: To know the importance of plant locations and plant layouts.
CO3: To understand production planning, control and production process
CO4: Support, manufacturing, decision based upon data derived from leading edge information technology system.
CO5: Create an energy management plant to compliance with the energy management system standard
CO6: To understand productivity technologies and indices method

T.Y.B.Com.

1. Principles and Practices of auditing

CO1: To develop the fundamental concepts of auditing.
CO2: To inculcate the knowledge of the principles and practices of internal and external auditing
CO3: To understand the auditing as a component of recurrent and strategic activities, internal control, system evaluation, and other audit issues.
CO4: To obtain working knowledge of auditing procedure techniques and skills.
CO5: To obtain the working knowledge of auditing in computerized information system environment.

2. Income Tax

CO1: To familiarize the students with recent amendments and rules in income tax.
CO2: To make the students to calculate the total income and tax liability of individual, assesses and firms.
CO3: To learn and apply principles and provisions of tax calculation from house properties.
CO4: Understand to calculate the taxable income under various heads of income.
CO5: To understand various slabs of income tax and how to use the slabs to calculate the tax liability.

3. Soft Skill Development

CO1: To develop the soft skills like interview technique, group discussions, effective communication.
CO2: To understand the concept of time management and stress management.
CO3: To know the concept of team management, leadership skills and personality development skills.
CO4: To understand learning skills, memorising techniques, mind mapping.

4. Human Resource Management

CO1: To understand the concepts, principles and practices of human resource management
CO2: To familiarise concept of human resource planning, job analysis, recruitments, and selection procedure
CO3: To understand the concept, training and management development of HRM
CO4: To provide recent trends in human resource management
CO5: To understand the various dimensions of human resource management like employee grievance, employee discipline

CO6: To understand the concept of manpower planning, performance appraisal, labour welfare, industrial relations, etc.

5. **Modern Management Technique**

CO1: To understand the concept, importance, and benefits of modern management technique
CO2: To understand the opportunities of modern management technique in corporate environment.
CO3: To study the modern management in various sectors, agro-based industries, IT sector, higher education, banking sector, tourism sector, etc.
CO4: To understand the qualities and duties of a manager and need of e-customer relation management.
CO5: To understand the modern management technique in foreign direct investment and internal rate of return.
CO6: To understand the statistical tools in production and operation and value of added process, product, place.
CO7: To understand the challenges of globalisation, innovations and e-commerce.

6. **Advanced Accounting I**

CO1: To study the computerised accounting procedure, application of accounting software packages
CO2: To know the recent trends in accounting like human resource accounting, inflation accounting,
CO3: To study how to prepare statement of affairs and efficiency accounts
CO4: To understand various methods of valuation of goodwill and shares
CO5: To understand the concept of holding company, subsidiary company, minority interest
CO6: To know how to prepare liquidators final statement of purpose

7. **Business Administration I**

CO1: To acquaint the students with the concept and issues in business administration like commerce, trade, administration, management and organisation.
CO2: To understand, the nature, scope of business administration
CO3: To understand the forms of business organisation and business environment
CO4: To study the corporate governance and business ethics
CO5: To understand the employee's morale, working conditions, and employee relationship
CO6: To study the government industrial policies and industrial relations.
CO7: To understand the job analysis, job descriptions, and job enrichment

8. Advanced Accounting II

CO1: To impart the students' knowledge about accounting treatment of corporate undertakings' restricting
CO2: To understand about the application of accounting knowledge in preparation of financial statement of bank account.
CO3: To know about application of the Accounting Standards concerning the aspects in accounting
CO4: To understand the procedure of amalgamation, absorption, external and internal reconstruction
CO5: To understand the concept of management accountancy and interpretation of financial statement.
CO6: To understand the ratio analysis and Fund Flow and Cash Flow analysis

9. Business Administration II

CO1: To acquaint the students with the concept of scientific management, rationalisation, automation and computerization.
CO2: To understand concept of decision making, operation research and risk management.
CO3: To know the capital structure, control over capital issues, fix capital, working capital and sources of finance.
CO4: To know the legal environment of business and new trends in business.
CO5: To understand about productivity, product quality control, and production control.
CO6: To understand the industrial engineering, work study, time and motion study, fatigue study, and industrial sickness.

Dadasaheb Devidas Namdeo Bhole College, Bhusawal

Department of Commerce and Management

B.Com.

Program Outcomes:

After successfully completing B. COM. Program, students will be able to

PO1: After completing three years in B. COM. Program, students would gain complete knowledge about the fundamentals of commerce, trade and finance.
PO2: The commerce, trade and finance centric syllabus offers a number of specializations and a practical approach which would able the student to face the modern-day challenges in commerce and management.
PO3: The perspective of the course is such that it is inclusive of a number of value-based and job oriented courses that ensures that the students are trained to be up-to-date. The advanced accounting courses beyond the basic level are beneficial for the affective development of students.
PO4: The courses are designed such that the students would be able to produce the basic commerce and management concepts of business laws, taxation, soft skills and they would be well-versed in practical applications of computer accounting.

Program Specific Outcomes:

After successfully completing B. COM. Program, students will be able to

PSO1: Students will gain through systematic and subject skills within various disciplines of commerce, business, accounting, costing, auditing, marketing and economics.
PSO2: Students will learn relevant, financial, corporate and advanced accounting, career skill for quantitative and qualitative knowledge to their future career in business.
PSO3: Students will be able to recognise features and roles of businessmen, entrepreneur and managers which will help them to acquire the required skills and react accordingly when presented with challenges.
PSO4: Students will be able to prove their skills with the ability to participate in competitive exams like CA, CS, ICWA and other similar exams.
PSO5: Students will acquire abilities like effective communication, decision-making, problem-solving in day-to-day business affairs.
PSO6: Students can acquire practical skills to work as tax consultant, audit assistant, and other financial services.

COURSE OUTCOMES

F.Y.B.Com.

6. Financial Accounting and Costing

CO1: Students would get a detailed overview of the various accounting standards.
CO2: Students would learn the gradual realisation and piecemeal distribution of cash on dissolution of partnership firm by different methods.
CO3: Students would be able to carry out the accounting procedure of amalgamation of partnership firms.
CO4: Students would be able to covert partnership firm into a limited company.
CO5: Students would prepare final account of sole trader and partnership firm from single entry system.
CO6: Students would have an in-depth knowledge of cost accounting and gain the ability to prepare cost sheets including quotation and tender.
CO7: Students would have an understanding about the accounting for dependent branches.
CO8: Departmental account, basis of allocations of common expenses among different departments and preparation of final account.
CO9: Accounting for consignment, transactions in consigner and consignee groups
CO10: Higher purchase accounting, calculation of interest, cash prize, accounting entries in the books of high purchaser and higher vendor
CO11: Accounting for investment, cum interest and ex interest, purchase, sales of securities
CO12: Importance of material accounting, economic order quantity, preparation of store ledger account.

7. Computing Skills

CO1: Introduction and uses of the internet, www, browser, search engine, webpage, email
CO2: Word, Excel, PowerPoint
CO3: Introduction to computerized accounting and Tally
CO4: Voucher entry, sales purchases, debit note, credit note, saving the voucher
CO5: Extracting trial balance, balance sheet, closing stop entry, profit and loss account

8. Quantitative techniques

CO1: Commercial arithmetic, calculation of interest, types of annuity
CO2: Mathematical logic, law of excluded middle, conjunction, negation
CO3: Permutation and combination – meaning and fundamental principles
CO4: Sets – meaning, method, types and operation
CO5: Introduction to statistics, samples, data, variable, applications and limitations of statistics

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T.Y.B.Com.

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16. Business Administration I

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CO5: To understand about productivity, product quality control, and production control.
CO6: To understand the industrial engineering, work study, time and motion study, fatigue study, and industrial sickness.

B. Com: English For Business

CO1: The students develop interest in literature.

CO2: The students use their moral and social sense in life.

CO3: The students are able to make special use of language for their expression.

F.Y.B.Com. (Gen. Hindi)

Course (HIN-102): Optional Hindi (Azim Premji & JRD Tata Biography)

After successfully completing this course students will able to

- Develop Hindi reading and linguistic comprehension of students.
- Develop interest in literature and biography.
- Inculcate moral and human values within themselves.
- The course will introduce that basic form of literature to the students
- The course will develop reading biography of motivational people for the students.
- The course will inspire students to develop their creative ability.
- Understand Azim Premji and J R D Tata's life.
- Understand the basic forms of biography writing in the life.

F.Y.B.Com. (Gen. Hindi)

Course (HIN-202): Optional Hindi (Narayan Murthy & Ratan Tata Biography)

After successfully completing this course students will able to

- Use their vocabulary for developing moral and social sense in life.
- Make special use of language for their expression.
- Understand the basic forms of biography.
- Inculcate moral and human values within themselves.
- Understand the Narayan Murthy and Ratan Tata's life.
- Development of knowledge for motivation our life.
- All are motivational biography for student motivate in our life.
- The course will introduce that basic form of literature to the students