॥ संहती कार्य साधिका, शिलंम परम भूषणंम ॥

Shetkari Shikshan Prasarak Mandal's

KRISHNA MAHAVIDYALYA RETHARE BK.

Internal Quality Assurance Cell

(IQAC)

PROGRAM OUTCOMES,

PROGRAM SPECIFIC

OUTCOMES

AND

COURSE OUTCOMES

2023-24

PROGRAMME OUTCOMES

Bachelor of Arts (B.A.)

After completion of the B.A. programme, the students will develop ability:

- To become a good citizen of India.
- To understand every field of Knowledge.
- To understand Moral ethics in humanities.
- To become socially conscious.
- The students acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible enough.
- The B.A. graduates will be acquainted with the social, economic, historical, geographical, political, ideological and philosophical tradition and thinking.
- To understand fundamental values of Indian Constitution.
- To get employment opportunities.
- To use communication skills.
- To make all round personality development of the learners.
- To become good human being.
- The program also empowers the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.

Bachelor of Science (B.Sc)

After completion of the B. Sc programme, the students will develop ability:

✓ The B.Sc Programme develops an insight of scientific inquisitiveness among students.

✓ It increases **scientific** temperament and attitude among the science graduates.

✓ It creates a systematic method of study ie. Observation, Experiment and Conclusion which is a basic principle of scientific research.

- ✓ The qualities of a science – observation, precision, analytical mind, logical thinking, clarity of thought and expression, systematic approach, qualitative and quantitative decision making are enlarged.
- ✓ The program also empowers the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.
- ✓ It trains the learners to extract information, formulate a scientific method of study and solve problems in a systematic and logical manner
- ✓ This programme enables the learners to perform the jobs in diverse fields such as agriculture, industries, engineering, survey, education, banking, development-planning, business, public service, self-business etc. efficiently.
- ✓ The programme also helps the students to perform their carrier in the field of basic and applied research.
- ✓ Understood the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.

Bachelor of Commerce (B. Com.)

After completion of the B. Com. programme, the students will develop ability:

- ❖ To understand the principal and areas of Commerce And management.
- ❖ To inculcate the qualities and skills of entrepreneurship.
- ❖ To understand basic knowledge of accounting
- ❖ To gain a thorough grounding in the fundamentals of Commerce and Finance.
- ❖ To face the modern-day challenges in commerce and business in relation with globalization.
- ❖ The course offers a number of value based and job-oriented knowledge which progress to the valuing and organization levels.
- ❖ The Course develops basic knowledge of statistical techniques applicable to business along with the concepts in Insurance, Banking, Marketing and e-

commerce.

- The program also empowers the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.
- The students also acquire knowledge in the field of management accounting, corporate accounting, statistical and mathematical techniques and knowledge relating to corporate law and business laws.
- The students become capable of doing a business of their choice or choosing a profession or can become employees having basic knowledge and skill required for such activities.

PROGRAMME SPECIFIC OUTCOMES

B. A. Programme

1. Marathi

After completion of the programme, the students will develop ability:

- To understand the creative process and appreciate Marathi literature.
- Students will understand the social customs, codes and get interest in reading Marathi literature.
- Students will be aware of impact of various factors on Marathi literature and use of formal and informal Marathi in communication.
- Students will develop their critical and creative skills and use of language in day-to-day life.
- Students can understand that moral values reflected in Marathi literature.
- Students can go for higher studies and post graduate courses in Marathi language
- Students can go for higher studies and post graduate courses in Marathi language

2. Hindi

After completion of the programme, the students will develop ability:

- In the history of Hindi literature and its various forms.
- students will write a compare and contrast paragraph using vocabulary associated with the language function.
- Language difficulties in the skills of listening, reading, writing, speaking can be understood and solved.
- Student learn communicate effectively in the Hindi language.
- students will write a compare and contrast paragraph using vocabulary associated with the language function.
- In understanding and appreciate literature in Hindi and use of Hindi in day-to-day life.

- Knowing difference between formal and informal use of language.
- Developing communication skills in Hindi and propagate Hindi as a national language.
- Get information about the Literary theories.

3. Economics

After completion of the programme, the students will develop ability:

- In understanding the behavior of Indian and world economy.
- Students will understand the role finance institution, finance management, Banking, E – Banking, money and Capital markets.
- Analyzing macroeconomic policies including fiscal and monetary policies of India along with the economic variables including inflation, unemployment, poverty, GDP, Balance of payments using statistical methods.
- Students will understand various aspects and features of Indian economy.
- Student will know about Consumer's behavior, Demand analysis, cardinal and ordinal utility.
- Students will know demographic features, size, sex ratio, growth rate, migration, Industrial development, Industrial policy, FERA, FEMA, Act. and the Concept of LPG.
- The students will understand various concepts of Agricultural Economics and they can be well familiar with rural Economy. Students can work efficiently in the field of banking, finance, industry, farming, consumer rights, production, research and trade
- To understand the behavior of financial and money markets and perform cost benefit analysis for making investments.

4. History

After completion of the programme, the students will develop ability:

- ✓ Understand the basic themes concept, Chronology and the scope of Indian history.

- ✓ To study the history of various countries in the world.
- ✓ To study and interpret history objectively.
- ✓ Prepare of various type of the competitive examination.
- ✓ To understand the change and impact of the revolutionary events.
- ✓ To understand the events of Indian freedom struggle and contribution of the freedom fighters to the making of modern India.
- ✓ Critically recognize Social, Political. Economic and cultural aspects of history.
- ✓ To realize the role of social reform movements in the development of modern India.

5. Geography

After completion of the programme, the students will develop ability:

- ❖ The program shall be helpful to gather information and Knowledge of basics in geography.
- ❖ The program gives minute knowledge of whole Earth ie. Lithosphere, Hydrosphere, Atmosphere and Biosphere.
- ❖ It will be helpful to understand the physical setup of the world and especially of India and Maharashtra.
- ❖ The program will be helpful to study the forms and processes of various landforms.
- ❖ To get acquainted with the relationship between human activities and physical Environment.
- ❖ To relate Global and Local situations.
- ❖ The study will be helpful to the planning and management of Natural and Human Recourses.
- ❖ It gives knowledge of Natural and Manmade Hazards and disasters and their management.
- ❖ To acquire knowledge of different traditional And Modern study techniques like cartography, GIS, GPS and Remote Sensing.

PROGRAMME SPECIFIC OUTCOMES

B.Sc Programme

1. Physics

After completion of the programme, the students will develop ability:

- To understand the core knowledge of Physics and the basic concepts which help them in understanding physical phenomenon in nature.
- It Identify their area of interest and further specialization in the subject and also develops skills and competencies to conduct scientific experiments related to Physics.
- The study inculcates rigorous understanding of the core theories & principles of physics, which includes mechanics, electromagnetism, thermodynamics, & quantum mechanics.
- It helps to understand the set of physical laws, describing the motion of bodies, under the influence of system of forces.
- It provides knowledge about material properties and its application for developing technology to solve the problems of the society.
- To learn the structure of solid materials & their different physical properties along with metallurgy, cryogenics, electronics & material science.
- To understand the fundamental theory of nature & levels of atom & sub-atomic particles.
- It provides advanced knowledge and skills for technical work in industries along with their knowledge and skills in carrying out independent work.

2. Chemistry

After completion of the programme, the students will develop ability:

- It provides a broad foundation in chemistry that stresses scientific reasoning and Analytical problem solving with a molecular perspective.
- It gives exposures of a breadth of experimental techniques using modern instrumentation and to understand the importance of the Periodic Table of the Elements and its role in organizing chemical information.
- They are able to secure profitable employment in industry or in government sector and the subject also produce graduate analyst with thorough knowledge of qualitative and

quantitative analysis, chemical synthesis, spectroscopic, electro-analytical, chromatographic, thermal, microscopic techniques and other basic analytical techniques to cater the need of various sections in industries such as QC, QA, ADL, R & D.

- To understand the interdisciplinary nature of chemistry and to integrate knowledge of mathematics, physics and other disciplines to a wide variety of chemical problems.
- To learn the laboratory skills needed to design and interpret chemical research and also acquire a foundation of chemistry of sufficient breadth and the depth to enable them to understand and critically interpret the chemical literature.
- To build up problem solving skills in students.
- To expose the students to different processes used in industries and their applications.
- To develop the ability to attain the knowledge of terms, facts, techniques, concepts, processes and principles of subjects.

3. Mathematics

After completion of the programme, the students will develop ability:

- ✓ To understand the core knowledge of Mathematics and the basic concepts which help them in understanding the basic Mathematics.
- ✓ It identify their area of interest and further specialization in the subject and also develops skills and competence to conduct scientific equations related to Mathematics.
- ✓ The study inculcates rigorous understanding of the core theories, equations, problems and principles of Mathematics.
- ✓ Students can apply induction principle and they also find LUB, GLB, definition of limit and continuity.
- ✓ They learn to solve improper integrals and make use of linear equations for solving any differential equations, understand various problems related with planar graphs.
- ✓ Understand the Concepts of Matrices and learn properties of inverse Laplace transforms
- ✓ Students can know the definition of the limit of a sequence and evaluate the limits of a wide class of real sequences.
- ✓ Students can understand the significance of differentiability for complex functions and be familiar with the Cauchy-Riemann equations.

It provides advanced knowledge and skills for technical work in research and formulation of

theories, concept, principals along with their knowledge and skills in carrying out independent work.

4. Zoology

After completion of the programme, the students will develop ability:

- To understand the core knowledge of Zoology and the basic concepts which help them in understanding the basics of Zoology.
- It identify their area of interest and further specialization in the subject and also develops skills and competence to conduct scientific study of Flora and Fauna.
- Students will demonstrate broad understanding of major current and past theories research findings and methodologies and techniques in their area of concentration both orally and writing.
- To understand the nature and basic Concepts of Cell Biology and the basic Concepts of Chordates and Non-Chordates along with the Concepts of Goatery and Lac Culture.
- To understand the various Applications of Biotechnology, the Lamarckism, Neo-Lamarkism and Darwinism and the terms ELISA technique, DNA finger printing and the process of evolution.
- It helps to retrieve, evaluate, and interpret professional scientific literature and use this information to develop theoretical framework, testable hypothesis and prediction for their own research project.
- It provides advanced knowledge and skills for technical work in research and formulation of theories, concept, principals along with their knowledge and skills in carrying out independent work.

5. Botany

After completion of the programme, the students will develop ability:

- To understand the core knowledge of Botany and the basic concepts which help them in understanding the basics of Botany.
- It identifies their area of interest and further specialization in the subject and also develops skills and competence to conduct scientific study of vegetation.
- It helps to understand plant structures in the context of physiological functions of plants along with the lipid metabolism in plants.
- It can help to know the morphological and structural organization of Cryptogams and Phanerogams along with economics of Botany and plant utilization in concern with

human life.

- It helps to understand plant biologists work primarily in the outdoors, forests, parklands, and fields.
- It also helps to develop ability of work in laboratories, museums, botanical gardens and in the industry.
- Students get knowledge of developing organic farming and
- The subject provides knowledge of diversity of plants, biology of plants and their industrial application of microorganism.
- Students can go into fields as diverse as biotechnology, environmental monitoring and agriculture.
- Student can get self-employment in the fields like mushroom Cultivation, organic manure preparation, the horticultural, plant production, cultivation of crops in poly-house condition, plant tissue, culture laboratories etc.

Course outcomes

Marathi

B.A. Part I – Discipline Specific Core (DSC-): Marathi (Paper – A1 and A13) (June 2018 onwards) अक्षरबंध

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and Literature.

CO 2. Improve Conversation skills and essential skills in Marathi.

CO 3. Criticize appreciation of film.

CO 4. Know the knowledge of how to write for print media.

B.A. Part II – Semester No. III Paper No. III (DSC-C1) साहित्यकृती : काय डेंजर वारा सुटलाय (नाटक) आणि मराठी भाषिक कौशल्ये

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and Literature.

CO 2. Improve the knowledge of Marathi Literature especially a Play.

CO 3. Understand different types of Drama

CO 4. Know the knowledge of how to write dialogues for drama.

B. A. Part II – Semester No. III Paper No. IV (DSC-C2) काव्यगंध आणि मराठी भाषिक कौशल्ये

After studying the course, the students:

CO 1. Become curious readers of poetry.

CO 2. Improve the knowledge of Marathi Literature especially Poetry.

CO 3. Understand different types of Poetry.

CO 4. Receive the knowledge of various cultures and traditions reflected in poetry.

B. A. Part II - Semester No. IV Paper No. V (DSC-C25) पक्ष्यांचे लक्ष थवे (कविता) आणि मराठी भाषिक कौशल्ये

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and Literature.

CO 2. Improve the knowledge of Marathi Literature especially Poetry .

CO 3. Understand characteristics of Poetry.

CO 4. Understand the knowledge about and his literary journey.

B. A. Part II - Semester No. IV Paper No. VI (DSC-C26) बनगरवाडी (कांदबरी) आणि मराठी भाषिक कौशल्ये

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and Literature.

CO 2. Improve the knowledge of Marathi Literature especially a novel.

CO 3. Understand the A novel as a form of literature.

CO 4. Identify major trends and elements of novel and types of novel.

CO5. Receive the knowledge of various cultures and traditions reflected in novel.

B. A. Part III – Semester No. V & VI Paper No. VII& XII काव्यशास्त्र

After studying the course, the students:

CO 1. Develop the knowledge of Kavyashastra.

CO 2. Study Western Poetic tradition and its importance.

CO 3. Understand the salient features & characteristics of Poetry.

CO 4. Know the structure of poetry and process of Poetic creation.

CO 5. Know the major critical concepts, literary movements.

CO 6. Attempt appreciating poetry in a critical way

CO 7. Explain the importance of Literary Writing.

B. A. Part III – Semester No. V&VI Paper No. VII & XII भाषाविज्ञान आणि मराठी भाषा

After studying the course, the students:

CO 1. Develop the knowledge of Bhashavidnyan.

CO 2. Study the correlation between Bhashavidnyan and Marathi language.

CO 3. Understand the salient features & characteristics of Bhashavidnyan.

CO 4. Know the rise, development and evolution of Marathi language.

CO 5. Know the importance of alphabets.

B. A. Part III - Semester No. V&VI Paper No. IX &XIV मराठी वाङ्मयाचा इतिहास

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and History of Medieval Marathi Literature.

CO 2. Identify structure & characteristics of Medieval Marathi Literature.

CO 3. Study the background of Medieval Marathi Literature.

CO 4. Understand the genre and importance of Medieval Marathi Literature.

B. A. Part III – Semester No. V&VI Paper No. X & XV मराठी भाषा अर्थाजनांच्या संधी

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language

CO 2. Study the correlation between formal & informal Marathi language.

CO 3. Study the Marathi language and linguistic skills.

CO 4. Understand the use of reading, writing, and speech in different situations.

CO 5. Write creative and Critical writing through Marathi language.

B. A. Part III Semester No. V&VI Paper No. XI& XVI

वाङ्मयप्रवाहाचे अध्ययन (ग्रामीण साहित्य आणि दलित साहित्य)

After studying the course, the students:

CO 1. Develop the knowledge of Marathi Language and Literature.

CO 2. Study the structure and characteristics of Gamin Sahitya.

CO 3. Read different types of masterpieces critically and creatively.

CO 4. Explain literary values and human values.

CO 4. Understand the structure and characteristics of Dalit Sahitya.

Hindi

B. A. I Paper No. I & II आधुनिक हिंदी साहित्य

After studying the course, the students:

CO 1. Develop the knowledge of Hindi Language and Literature.

CO 2. Study the background of Aadhunik Hindi Sahitya.

CO 2. Study the structure and characteristics of Aadhunik Hindi Sahitya.

CO 3. Study the correlation between Aadhunik Sahitya & Madhyayugin Sahitya.

CO 5. Write creative and Critical writing through Hindi language.

B. A. II Paper No. III & V अस्मितामूलक विमर्श और आधुनिक गद्य साहित्य आणि रोजगारपूरक हिंदी

After studying this course, students:

CO1. Develop the nature, principle and types of Hindi prose literature

CO2. Study and develop the present state of short story and novel in Hindi literature

CO3. Introduce the personalities of Hindi literature.

CO4. Study the great varieties in Hindi language & literature.

CO5. Create interest to work in Hindi language.

CO6. Develop skill related to work education and experience

CO7. Progress in the students to create thinking and imagination capacity

CO8. Develop the skills of listening and writing in the language

B. A. II Paper No. IV & VI मध्ययुगीन एवम आधुनिक काव्य

After studying this course, students:

CO 1. Develop the knowledge of Hindi Literature especially Kavya.

CO 2. Study the background of Madyayugin evm Aadhunik Hindi Kavya.

CO 3. Study the structure and characteristics of Madyayugin evm Aadhunik Hindi Kavya.

CO 4. Study the knowledge of Literary Forms in Saint kavya and Epic.

CO 5. Write creative and Critical writing through Hindi language especially Kavya.

B. A. III Paper No. VII & XII विधा विशेष का अध्ययन

After studying this course, students:

CO1. Study the background of Hindi novel and biography.

CO2. Inform about Hindi women novelist and Hindi women biographers

CO3. Study the correlation between Dalit women & Dalit society

CO4. Understand the religions emotions in special context Vidha Vishesh ka Adhyayan

CO5. Inculcate human values through Vidha Vishesh ka Adhyayan.

B. A. III Paper No. VIII & XIII साहित्यशास्त्र

After studying this course, students:

CO1. Study various types of Indian and Western Hindi literature.

CO2. Understand merits and demerits of Hindi poetry

CO3. Create awareness amongst the students about poetry writing.

CO4. Write creative and Critical writing through Hindi language especially Sahitya Shastra.

B. A. III Paper No. IX & XIV हिंदी साहित्य का इतिहास

After studying this course, students:

CO 1. Understand the origin of Hindi language and its literature.

CO 2. Understand the development of Hindi literature.

CO 3. Understand the key concepts in Hindi Sahitya ka Itihas.

CO 4. Understand the reasons of emergence of Adhunikkal in Hindi literature.

CO 5. Understand the classification of Hindi literature.

CO 6. Understand the features of Adikal, Bhakti kal, Ritikal and Adhunikkal, in context of socio - cultural and political condition of that period.

B. A. III Paper No. X & XV प्रयोजनमूलक हिंदी

After studying this course, students:

CO1. Understand the use of Internet in Prayojanmulak Hindi.

CO2. Understand the use of multimedia in Hindi Language.

CO3. Develop knowledge of Hindi Linguistics and Grammar.

CO4. Develop interest in Vishvhindi BhashaVikasProcress

CO 5: Understand the importance of each period of Hindi literature.

B. A. III Paper No. XI & XVI भाषाविज्ञान आणि हिंदी भाषा

After studying this course, students:

CO1. Study the various Methods of Bhasha Vidnyan.

CO2. Understand Communication Process and Methods in Hindi.

CO3. Develop the knowledge of Hindi Linguistics and Grammar.

CO4. Create interest in Hindi Bhasha Vikas Process.

ECONOMICS

B.A.-I: Paper I & II DSC (B3) & DSC (B17) - Indian Economy

After studying this course, students:

CO1. Understand characteristics features of structural changes in Indian Economy.

CO2. Study the nature & impact of new economic reforms on Indian Economy.

CO3. Know the problem of unemployment, poverty, rising economic and social inequality and problems of regional imbalances in India.

CO4. Evaluate the changing role of agricultural, industrial and service sector and foreign sector in Indian Economy.

CO5. Measure the growth, volume, composition and direction of India's foreign capital inflow since 1991.

B.A.II: Sem. III & IV Paper No.-3 & 5 Macro Economics

After studying this course, students:

CO1. Identify the basic concepts and theories of Macro Economics.

CO2. Develop awareness about changing Macro Economics Policies and Theories.

CO3. Understand concepts like GDP, GNP, NNP, Per Capital, Disposable income, Per capita income and national income.

CO4. Identify the factors determining gross domestic product, employment, the general level of prices and interest rate.

CO5. Realize the low of markets, consumption function and investment function.

CO6. Judge the role of fiscal policy, monetary policy in developing economy.

CO7. Know features, phases and theories of trade cycle.

CO8. Evaluate types, merits, demerits of taxes.

CO9. Comprehend the role of public finance in developing economy.

B.A.II: Sem. III&IV Paper No. – 4 &6 Banks and Financial Markets

After studying this course, students:

CO1. Understand the Meaning, Function and role of commercial banking.

CO2. Comprehend the procedure of an account opening, operating and closing.

CO3. Know the structure, function and role of RBI in economic Development.

CO4. Judge the progress of financial inclusion.

CO5. Evaluate the importance, characteristics and components of financial market.

CO6. Understand the role and types of development bank and non-banking financial intermediaries.

CO7. Realize the banking reforms and Basel Norms I and II.

CO8. Study recent trends in Indian banking such as E-banking, MRCI clearing,

CO 9. ATMs, Credit card, Debit Card, Travelers cheque, Gift cheque and De-mat Account

B.A. III: Sem. 5 & 6 Paper No. – 7 Micro Economics & Paper No. – 12 Market & Pricing

After studying this course, students:

CO1. Know the decision making of consumers

CO2. Identify the nature of revenue and cost of production.

CO3. Comprehend the demand function and production function.

CO4. Clarify the meaning of marginal, average, total revenue marginal, average and total cost and its implication.

CO5. Create awareness of different market structure.

CO6. Understand pricing in different markets.

B.A. III: Sem. 5 & 6 Paper No. – 8 & 13 Research Methodology (Part I & II)

After studying this course, students:

CO1. Understand the basic framework of research process and defining various research designs and techniques.

CO2. Identify sources of information for literature review and data collection.

CO3. Discuss the ethical dimensions of conducting applied research & appreciating the components of scholarly writing and evaluating its quality.

CO4. Know various aspects of Research in Economics.

CO5. Understand various data analysis techniques (Mean, Mode, Median, Range, Standard Deviation, Karl person coefficient of correlation).

CO6. Interpret data and report writing.

B.A. III: B.A. III: Sem. 5 & 6 Paper No. – 9 & 14 History of Economic Thoughts

After studying this course, students:

CO1. Study economic thoughts of Classical, Nationalist and Socialist Thinkers.

CO2. Judge the Development of economic thoughts.

CO3. Evaluate the Development of Indian economic thoughts.

CO4. Realize the economic concepts and theories of Neo-classical and Indian

thinkers.

B.A. III: B.A. III: Sem. 5 & 6 Paper No. –10 Economic Developments

Paper No. – 15 Economic Planning

After studying this course, students:

CO1. Understand the concept and aspects of economic Development.

CO2. Know the theories of economic growth &Development.

CO3. Measure the concept and issues of economic planning.

CO4. Discuss the need, types and necessary conditions of economy.

B.A. III: B.A. III: Sem. 5 & 6

Paper No. – 11 &16 International Economics (Part I & II)

After studying this course, students:

CO1. Elaborate the importance of International Economics.

CO2. Know the changes in the import-export policies of India, evaluating various types of exchange rates and its merits and demerits.

CO3. Discuss the types and effects of tariffs and quotas.

CO4. Judge the function, merits and demerits of Foreign Capital, and International Corporation (IMF, IBRD, W and SAARC).

CO5. Realize the volume, composition and direction of Balance of trade and Balance of payments.

HISTORY

B.A.I - Paper No. I/II Rise of the Maratha Power & polity

After studying this course, students:

CO1. Understand of importance of the Maratha History in the 17th Century.

CO2. Study the circumstance at the time of rise of the Maratha took place.

CO3. Understand the political scenario of the Maratha in the 17th Century.

CO4. Understand the policies of Chhatrapati Shivaji Maharaj.

B.A. II – Paper No. III/V History of Modern Maharashtra

After studying this course, students:

CO1. Study the background of History of Modern Maharashtra.

CO 2. Understand of importance of the Maratha in Modern Maharashtra.

CO 3. Know the first 60 years span of 20th century (a period of great upheaval in Maharashtra).

CO 4. Study the event and changes that look place a lasting impact on the polity, society and economy of the Modern Maharashtra.

B.A. II – Paper No. IV/VI History of Indian freedom struggle, Part I&II

After studying this course, students:

CO1. Study the background of History of Indian Freedom Struggle.

CO 2. Understand the history of Indian freedom struggle as a glorious epic of Indian history.

CO 3. Study the characteristics and importance of Indian freedom struggle.

CO4. Understand the great sacrifices of freedom fighters in Indian freedom struggle.

B.A. II IDS History of Social Reform in India and History of Social Reform in Maharashtra

After studying this course, students:

CO1. Study the background of Social Reforms in Maharashtra & India.

CO 2. Understand the importance of movements of social reformers in Maharashtra & India.

CO3. Understand the time span of reform movements in the traditional Maharashtra & India.

CO 4. Develop the values of social justice and equality.

B.A. III Paper No. VII/XII History of Ancient India.

After studying this course, students:

CO 1. Perceive various sources of Ancient India.

CO 2. Know the development and achievements of man in the Stone Age.

CO 3. Understand the glory of Indian history in the age of Harppan civilization.

CO 4. Comprehend the history of Vedic period.

CO 5. Understand the philosophy of Jainism and Buddhism.

B.A. III Paper No. VIII/XIII Political, Socio-Economic And Cultural History of Medieval India.

After studying this course, students:

CO 1. Understand early difficulties of Medieval India.

CO 2. Know the system of trade and commerce during the period of Medieval India.

CO 3. Understand the nature of village community and the relationship between the different classes of society.

CO 4. Study the Socio-culture system of the Mughal Raj.

CO5. Understand the Political system of the Mughal Raj.

B.A. III – Paper No. IX/XIV India since Independence- Part I&II

After studying this course, students:

CO 1. Introduce important events in the World History.

CO 2. Study the important events before Independence period.

CO 3. Create awareness about Indian freedom struggle and contribution of the freedom fighters.

CO 4. Know the contribution of the social reform movements.

B.A. III Paper No. X/XV History of Maharashtra

After studying this course, students:

CO1. Understand the beginning and growth of nationalist consciousness in Maharashtra.

CO 2. Explain the contribution of Maharashtra to the national movement.

CO 3. Give an account of various movements of the peasants, workers, woman and backward classes.

CO 4. Know the background and events which led to the formation of separate state of Maharashtra.

B.A. III Paper No. XI/XVI Introduction of Historiography And Application of History

After studying this course, students:

CO1. Study the key concepts in historiography.

CO2. Understand the importance of historiography in present era.

CO 3. Develop application of History in today's scenario.

CO 4. Study various fort visits, theories and projects related to historiography.

GEOGRAPHY

B.A.-I: DSC – I (Paper I) Physical Geography

After studying this course, students:

CO1. Understand the functioning of Earth &analyze natural and anthropogenic operating factors affects the development of landforms.

CO2. Distinguish between the mechanisms that control these processes.

CO3.Assess the roles of structure, stage and time in shaping the landforms, interpret geomorphologic maps and apply the knowledge in geographical research.

CO4. Explain exposure of climatology.

CO5. Study knowledge of upper atmospheric conditions and cyclonic features.

CO 6. Understand the characteristics of climatic regions.

B.A.-I : DSC – II (Paper II) Human Geography

After studying this course, students:

CO1. Exposure of contemporary relevance of cultural landscape

CO2. Study spatial concepts, geographic vocabulary and landscape interpretation to a variety of locations and situations around the globe & in local areas.

CO3. Understand knowledge of space and society of cultural regions

CO4. Understand the settlement pattern and population resource relationship

B.A.II: DSC – III (Paper 3) Soil Geography

After studying this course, students:

CO1. Understand soil is key resource for the development of any country.

CO2. Understand the process of soil formation and development as well as soil properties.

CO3. Know classification, characteristics and distribution of soils

CO4. Understand the concepts related to soil degradation and erosion, causes and controlling factors of soil erosion, conservation of soils

B.A.II: DSC – IV (Paper 4) Resource Geography

After studying this course, students:

CO1. Study the role of Resource Geography in the present scenario.

CO2. Understand the concept and classification of Resources.

CO3. Understand knowledge of the major resources (water, forest, energy and human) with their distribution, utilization and problems

CO4. Explain the sustainable resource development.

B.A.II: DSC – V (Paper No. 5) Oceanography

After studying this course, students:

CO1. Describe the major surface and deep currents in the oceans and explain their causes.

CO2. Analyze the movement of tectonic plates, MOR and seduction zone.

CO3. Relate scales and rates of ocean and ocean processes.

CO4. Explain physical and chemical factors affecting the climate in the past,present and future.

B.A.II: DSC – VI (Paper 6) Agricultural Geography

After studying this course, students:

CO1. Understand the concept and development of Agriculture

CO2. Explain the agriculture and its determinants

CO3. Study Indian and World agriculture regions and systems

CO 4. Understand sound knowledge of agriculture revolutions

B. A. Part – III Geography Paper VII-DSE- E 106 Evolution of Geographical Thought

CO 1. Student should be able to understand in-depth about the Evolution of Geographical Thought.

CO.2. Students should be able to analyse the recent trends in geography

CO.3. Student should be able to make use of various models of paradigms and debates in the geographical studies. Understanding of recent trends in geography.

B. A. Part – III Geography Paper No. VIII DSE E107 - GEOGRAPHY OF INDIA

CO.1 In depth understanding the dimensions and physiography of India

CO.2. The students are fully aware about the climatic seasons in India.

CO.3. Detailed knowledge about soils, vegetation, drainage systems in India.

CO.4. Understanding an importance of agriculture and industry in Indian economy.

CO.5. Detailed knowledge about the economic setup of the India.

B. A. Part – III Geography DSE E108 Paper No. IX- POPULATION GEOGRAPHY

CO.1. This paper would bring an understanding of population geography along with relevance of demographic data.

CO.2. The students would get an understanding of distribution and trends of population growth in the developed and less developed countries, along with population concepts.

CO.3. The students would get an understanding of the dynamics of population

CO.4. An understanding of the implications of population composition in different regions of the world.

CO.5. An appreciation of the contemporary issues in the field of population studies

B. A. Part – III Geography PAPER X-DSE- E 231 Economic Geography

CO.1. In depth understanding about the economic geography.

CO.2. Detailed knowledge about locational factors of economic activities with special reference to agriculture and industry.

CO.3. Detailed understanding of the basics concepts related to manufacturing and major manufacturing industries (selected countries) of the world. Understanding of the transport and trade.

B. A. Part – III Geography DSE-E232 or XI-Regional Planning and Sustainable Development.

CO.1.The students were known the importance of regional planning.

CO.2. The students understood the concepts of region, regionalization, regional planning & development and detailed knowledge of region.

CO.3 The students were familiar with indicators of measurement of development.

CO.4. Detail understanding of Perroux's Growth Pole Model & Growth Center Model in Indian context.

CO.5. The students are develop skills for demarcation of region and aware the regional planning with recent technology.

B. A. Part – III Geography DSE-E233 Paper No. XII -Geography of Health and Wellbeing

CO.1.Understand various geographical perspectives related to human health.

CO.2.Create awareness of human health and environmental trends.

CO.3.The students are familiar with geographical background of diseases and their regional pattern.

CO.4.Detail understanding of pressure on environmental quality and human health.

CO.5. Create awareness among the students of malnutrition and hygiene.

CO.6.The students are familiar with the process of health care planning in India.

CO.7.The students are aware about impact of climate change on human health.

DSE- -E234 Paper XIII or Practical Paper -I Fundamentals of Map Making and Map Interpretation

CO.1.In depth understanding the map, concept of scale and projection.

CO.2.Detailed knowledge about the analysis of landforms and its identification. The students are deeply aware about basic information to the students about S.O.I. top maps and I.M.D. weather maps and obtained the skills about map interpretation.

CO.3.The students are deeply familiar with different cartographic techniques and methods used for representation of demographic and physio- socio-economic database.

DSE -E235 or Paper XIV Practical Paper -II Advanced Tools, Techniques & Field Work in Geography

CO.1.In depth understanding the importance of field work and advanced Techniques in Geography.

CO.2.The students are trained to implement modern tool and techniques in Geography.

CO.3.Detailed knowledge about the use of computer for analysis of Geographical data.

CO.4. The students are deeply aware about the basics and trained in instrumental survey.

English

B.A. Part I – Ability Enhancement Compulsory Course (AECC 1)(CBCS) English for Communication (June 2018 onwards)

After studying this course, students:

CO1. Know how to deal with communication skills.

CO2. Know how to develop Vocabulary.

CO 3. Improve the language competencies of the students.

CO 4. Use English for general purposes in various situations.

CO 5. Develop the skill of making inquiries.

CO 6. Improve the skill of describing objects, persons, places and daily routine

B.Sc. Part I CBCS AECC –A Compulsory English -English for Communication

CO 1. To acquaint students with communication skills.

CO 2. To inculcate human values among the students through poems and prose.

CO 3. To improve the language and business competence of the students.

B. Sc. III AECC Compulsory English -English for Communication

CO 1. Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.

CO 2. Face job interviews confidently and efficiently.

CO 3. Acquire soft skills required at workplaces and in real life.

CO 4. Learn group behavior and team work.

CO 5. Learn to value and respect others' opinions and views and develop democratic attitude.

CO 6. Face competitive examinations confidently and efficiently with adequate linguistic confidence.

CO 7. Acquire professional skills required in media writing such as writing editorials.

CO 8. Learn to appreciate and enjoy reading poetry and prose passages.

B.Com. Part I- CBCS AECC Compulsory English-English for Business Communication

CO 1. To acquaint students with communication skills.

CO 2. To inculcate human values among the students through poems and prose.

CO 3. To improve the language and business competence of the students.

B.COM.II -CBCS AECC Compulsory English-English for Business Communication

CO 1. To enable the students to develop communication skills in English, both oral and written.

CO 2. To equip the students with the language skills for use in their personal, academic and professional lives.

CO 3. To develop the student's essential employability skills.

CO 4. To help the students to enter the job market with confidence and the ability to work effectively.

CO 5. To help the students to learn and practice both language and soft skills.

CO 6. To encourage the active involvement of students in learning process.

CO 7. To enable the students to cultivate a broad, human and cultured outlook.

B.Sc. (Physics)

Course Outcomes: B.Sc. I Paper I : Mechanics -I

By the end of this Course students should be able to know about:

CO1. Different types of motions in nature.

CO 2. Difference between translational motion and rotational motion.

CO 3. Different laws of motions.

CO 4. Differential equations and their applications.

B.Sc. I Paper II : Mechanics -II

By the end of this Course students should be able to know about:

CO 1. Oscillations and waves and their properties.

CO 2. Use of waves in general life.

CO Various elastic constants and properties of elasticity.

CO Surface tension and their applications.

CO 5. Applications of GPS and Satellite.

Paper III : Electricity And Magnetism -I

By the end of this Course students should be able to know about:

CO 1. Scalar vector and their mathematical Applications.

CO 2. Dielectric phenomenon.

CO 3. Difference between polar and non-polar molecules.

CO 4. Varies types of Condenser and calculation of capacity.

Paper IV : Electricity And Magnetism -II

By the end of this Course students should be able to know about:

CO 1. What is the origin of magnetic property of material?

CO 2. Complex number and their application in solving problems in Ac circuits.

CO 3. Boisvert's law and its applications.

CO 4. Maxwell's equations and electromagnetic waves propagation in vacuumed and

isotropic dielectric medium

Paper V : Thermal Physics and Statistical Mechanics -I

By the end of this Course students should be able to know about:

CO 1. General information of various types of gases and theories related to it.

CO 2. Thermal properties of gases and various laws related in thermodynamics.

CO 3. Transport phenomena in gases.

CO 4. Concept of heat and temperature and different types of thermometer.

Paper VI : Waves and Optics -I

By the end of this Course students should be able to know about:

CO 1. Use of Cathode ray oscilloscope in oscillations.

CO 2. Linearity and superposition principles

CO 3. Coupled oscillatory system.

CO 4. Oscillations and waves and their properties.

CO 5. Viscosity of liquid and its mathematical theory related with it.

Paper VII: Thermal Physics and Statistical Mechanics -II

By the end of this Course students should be able to know about:

CO 1. Study of thermodynamic and different thermodynamically relations

CO 2. Study of theory of radiations.

CO 3. Study of classical and quantum statistics

CO 4. Thermodynamic probability and probability distribution.

CO 5. LASERS and applications in various fields.

Paper VIII: Waves and Optics -II

By the end of this Course students should be able to know about:

CO 1. Lenses and various cardinal points.

CO 2. Formation of Images by Newton's formula.

CO 3. Properties of light like interference, diffraction and polarization with theory and experiments.

CO4. Resolving power of different optical instruments

Paper IX: Mathematical and Statistical Physics

By the end of this Course students should be able to know about:

CO 1. Study of different coordinate systems.

CO 2. Differential equations and their applications.

CO Experimental study of Black body radiation spectrum.

CO 4. Basic concepts in statistical physics and MB,BE,FD statistic.

Paper X: Quantum Mechanics

By the end of this Course students should be able to know about:

CO 1. Interpretation of wave fiction and Schrodinger's wave equation

CO 2. Quantum mechanical treatment of particle in a rigid box.

CO 3. Schrodinger's equation for hydrogen atom

CO 4. Significance of quantum numbers.

CO 5. Various operators in quantum mechanics.

Paper XI: Classical Mechanics

By the end of this Course students should be able to know about:

CO 1. Study of mechanics of particle and system of particle.

CO 2. Coriolis force and effect of Coriolis force in nature

CO 3. Applications of Lang ranges equations

CO 4. Study of techniques of calculus of variation

CO 5. Motion of rigid body in space

Paper XII: Atomic and Molecular Spectra, Astronomy and Astrophysics

By the end of this Course students should be able to know about:

CO 1. Doublet fine structure and electron spin orbit interaction

CO 2. Effect of magnetic field on atomic spectra

CO 3. Study the Raman effect and its classical theory.

CO 4. Study of origin of solar system.

CO 5. Evidences of geological activities.

Paper XIII: Nuclear and Particle Physics

By the end of this Course students should be able to know about:

CO 1. Need of accelerators and principal, construction and working conditions of accelerators.

CO 2. Study of principal, construction and working conditions of nuclear detector.

CO 3. Study of nucleus and its properties.

CO 4. Origin of cosmic rays and its types.

Paper XIV: Energy Studies and Material Science

By the end of this Course students should be able to know about:

CO 1. Classification of energy resources and their alternatives.

CO 2. Solar energy from satellite power station.

CO 3. Study of impurities in solid and defect in solids.

CO 4. Study of super conductivity.

CO 5. Introduction of nano science and nano technology

Paper XV: Electrodynamics and Electromagnetic Waves

By the end of this Course students should be able to know about:

CO 1. Study of electrostatics and motion of charge particle.

CO 2. Electromagnetic inductions and their applications.

CO 3. Maxwell's equations and their physical significance.

CO 4. Study of skin depth conservation of energy in electromagnetic fields.

Paper XVI: Solid State Physics

By the end of this Course students should be able to know about:

CO 1. Study of crystalline and non-crystalline solids.

CO 2. Study of X ray diffraction method.

CO 3. Elastic vibrations of diatomic and mono atomic lattice

CO 4. Solid state devices and their applications.

CO 5. Study of metal semiconductors and insulator

B.Sc. (CHEMISTRY)

Paper I: Physical chemistry.

By the end of this Course students should be able to know about:

CO 1. The students will understand concept of distribution law, thermodynamics, chemical kinetics, gaseous state and nuclear chemistry.

CO 2. The students will identify order and molecularity of a chemical reaction.

CO 3. The student will explain the velocity and productivity of reactions.

CO 4. The student will explain the advantages and disadvantages of nuclear reactions theoretically.

Paper II: Inorganic Chemistry

By the end of this Course students should be able to know about:

CO 1. The student will understand the ionic solid and their crystal structure.

CO 2. The student will understand the nature, applications of element of p block elements.

CO 3. The student will get the knowledge of separations of metals from mixture.

CO 4. The student able to group the chemical compounds aromatic and non aromatic

category.

CO 5. The student will get the knowledge acids and bases their applications in day to day life.

CO 6. The student will aware about the Nobel gases

Paper III: Organic Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to discuss the concept of stereochemistry.

CO 2. The students will able to discuss the optically active or inactive compounds.

CO 3. The students will able to discuss Fundamentals of organic reactions and mechanisms.

CO 4. The student will explain brief idea of types of chemical reactions and reactive intermediates.

CO 5. The students will discuss the reagents in organic synthesis.

CO 6. The student will get the knowledge of aromatic and non-aromatic compounds.

Paper IV: Industrial Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to discuss the Scope and basic concept of industrial chemistry.

CO 2. The students will explain the cause of pollutions and their control measures.

CO 3. The student will explain applications of some important methods of industrial processes.

CO 4. The student will get the knowledge of Petrochemical industry.

CO 5. The student will get the knowledge Fertilizer analysis.

Paper V: Organic Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to classify Polynuclear hydrocarbons

CO 2. The students will able to discuss stereochemical aspect with respect to the stereospecific and stereoselective reactions with their mechanism.

CO 3. The students will understand importance of stereochemistry in the processes of

industries.

CO 4. The students are able to understand importance of heterocyclic compounds and

their classifications.

CO 5. The students will understand the concept and need of green chemistry.

Paper VI: Analytical Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to understand the concept of analytical chemistry.

CO 2. The students will able to understand the inorganic qualitative and quantitative methods of analysis.

CO 3. Students will understand basics of titrations methods.

CO 4. The students will able to discuss mechanism Gravimetric analysis.

CO 5. The students will able to discuss abut fertilizer analytical methods.

Paper VII: Physical Chemistry

By the end of this Course students should be able to know about:

CO 1. To provide the students with detailed knowledge of Electrochemistry.

CO 2. To provide a good knowledge of physical properties of liquids.

CO 3. To know practical and theoretical knowledge electrochemical processes and instrumentations.

Paper VIII : Inorganic Chemistry

By the end of this Course students should be able to know about:

CO 1. The student will get knowledge of chemistry of elements of 1row transition series.

CO 2. The student will understand the nature, applications of f - block elements.

CO 3. The student will get the knowledge of coordination compounds and their applications.

CO 4. The student able to understand the concept and applicability of Non Aqueous solvents.

CO 5. The student will get the knowledge chelation and applications in day today life.

CO 6. The student will aware about the term catalysis and their importance in synthetic

chemistry.

Paper IX: Physical Chemistry

By the end of this Course students should be able to know about:

CO 1. Students will able to understand concepts and applications of quantum mechanics.

CO 2. Students will able to understand the term spectroscopy.

CO 3. Students will know photochemistry, photochemical reactions and their applicability in day today life.

CO 4. Students will able to understand definition and scope solutions.

CO 5. Students will able to understand the electromotive force and their uses.

Paper X: Inorganic Chemistry

By the end of this Course students should be able to know about:

CO 1. Students will able to understand Hard and Soft acids and Bases (HSAB)

CO 2. Students will able to understand metal ligand bonding in transition metal complexes and their applications in industrial word.

CO 3. Students will able to understand polymer preparations and their recycle procedures.

CO 4. Students will able to understand the Organometallic chemistry.

CO 5. Students will able to understand the concept of metal semiconductor and superconductor and its uses.

Paper XI: Organic chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to understand the physical methods of analysis.

CO 2. The students will able to discuss the data analysis and deductions of the structure of unknown organic compounds.

CO 3. The students will understand importance of spectroscopy in the manufacturing processes of industries. It has wide applications in Research and developments section of various industries.

CO 4. The students are able to understand importance data analysis and the confirmation of structure of unknown organic compounds.

CO 5. The students will understand the concept and need of spectroscopy in chemical industry.

Paper XII: Industrial Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to understand the concept of Industrial chemistry.

CO 2. The students will able to understand the manufacturing of heavy chemical processes and their applications.

CO 3. Students will understand basics of corrosion and passivity.

CO 4. The students will able to discuss mechanism sugar industry.

CO 5. The students will able to discuss abut soaps and detergents manufacturing process and mechanism.

Paper XIII: Physical Chemistry

By the end of this Course students should be able to know about:

CO 1. Students will able to understand concepts and applications of phase rule.

CO 2. Students will able to understand the term solid state chemistry, synthetic applications.

CO 3. Students will know surface chemistry

Paper XIV: Inorganic Chemistry

By the end of this Course students should be able to know about:

CO 1. Students will able to understand inorganic reaction mechanism.

CO 2. Students will able to understand thermodynamic and chemical kinetic aspect of metal complexes.

CO 3. Students will able to understand iron and steel and their production technique.

CO 4. Students will able to understand the concept bioinorganic chemistry.

Paper XV: Organic chemistry

By the end of this Course students should be able to know about:

CO 1. Students will able to understand concepts and applications of name reactions.

CO 2. Students will able to understand the term reagents and synthetic applications.

CO 3. Students will know electrophilic addition reactions and their applicability in day today life.

CO 4. Students will able to understand definition and scope Natural Products.

CO 5. Students will able to understand the Pharmaceutical products and their uses.

Paper XVI: Analytical Chemistry

By the end of this Course students should be able to know about:

CO 1. The students will able to understand the concept of analytical chemistry.

CO 2. The students will able to understand the procedure of potentiometric titration and their application.

CO 3. Students will understand basics of colorimetry and spectrophotometry

B.Sc. (Botany)

Paper I: Viruses, bacteria, Algae And Fungi.

By the end of this Course students should be able to know about:

CO 1. Understand the diversity among Viruses, Bacteria, Algae and Fungi.

CO 2. Create interest in bio-industries

CO 3. Know the systematic, morphology and structure, of Bacteria, Viruses and Algae.

CO 4. Developing skill of identification algae, fungi, bacteria's and viruses.

CO 5. Understand the useful and harmful importance of Bacteria, Viruses and Algae

Paper II: Biodiversity of archegoniate.

By the end of this Course students should be able to know about:

CO 1. Understand the diversity among archegoniate salient features of each group with reference to example

CO 2. Understand the morphological diversity of Bryophytes, Pteridophytes and gymnosperms.

CO 3. Understand the economic importance of gymnosperms.

Paper III: Plant Ecology

By the end of this Course students should be able to know about:

CO 1. Student know about ecological terms, ecosystem community, ecological groups of plants and their adaptations, phytogeography.

Paper IV: Plant Taxonomy

By the end of this Course students should be able to know about:

CO 1. Student becomes familiar with basic science Plant taxonomy includes nomenclature, classification and herbarium techniques.

CO 2. Student know about advanced plant group angiosperms with reference to

some families.

Paper V: Algae, fungi, Bryophytes and industrial applications.

By the end of this Course students should be able to know about:

CO 1. Students becomes familiar with non vascular plants with classical examples of each.

CO 2. Learn the industrial applications of various plants and plant products such as biofertilizers, mushroom cultivation techniques.

Paper VI: Plant physiology ecology and horticulture.

By the end of this Course students should be able to know about:

CO 1.Know importance and scope of plant physiology.

CO 2.Understand the plants and plant cells in relation to physiological process growth, know about role of phytohormones in plants.

CO 3. Students becomes familiar with scope and branches of horticulture, methods of propagation of horticulture plant.

Paper VII: Pteridophytes, Gymnosperms, angiosperms and plant anatomy.

By the end of this Course students should be able to know about:

CO 1. Students becomes familiar with vascular plants with classical examples of each.

CO 2. Students understands the anatomy of angiosperms.

Paper VIII: Cytogenetics and utilization of plant resources.

By the end of this Course students should be able to know about:

CO 1. Understand structure of cell, cell organ allies, genetical process such as phenomenon of linkage and recombination.

CO 2. Students becomes familiar with different plant resources, some medicinal plants with classical examples.

Paper IX: Biology of non-vascular plants.

By the end of this Course students should be able to know about:

CO 1. Students becomes familiar with non-vascular plants with classical examples

of each.

CO 2. To know the geological time scale, process of carbon dating, application of paleobotany in oil and coal exploration.

Paper X: Genetics and analytical techniques in plant science.

By the end of this Course students should be able to know about:

CO 1. Understood chromosome structure, number, mutation and population genetics.

CO 2. To know extra chromosomal inheritance in plastid and mitochondria.

CO 3. Students becomes familiar with analytical techniques in plant sciences.

Paper XI: Fundamentals of plant physiology and ecology.

By the end of this Course students should be able to know about:

CO 1. To understand plant life processes mineral nutrition, nitrogen metabolism Photosynthesis and respiration.

CO 2. To understood the concept of population ecology and biogeochemical cycles.

Paper XII: Plant biochemistry.

By the end of this Course students should be able to know about:

CO 1. To understand the biochemistry of carbohydrate, lipid, protein and nucleic acid.

CO 2. Understood biochemical processes and their significance in plants.

Paper XIII: Biology of vascular plants.

By the end of this Course students should be able to know about:

CO 1. Students becomes familiar with vascular plants and their significance.

CO 2. Understood modern taxonomy in relation to palynology, anatomy and cyto-taxonomy in plants.

Paper XIV: Microbiology and plant pathology.

By the end of this Course students should be able to know about:

CO 1. Students becomes familiar with methods used in microbiology for isolation, culture methods, staining methods and their industrial applications.

CO 2. To understand structure of different microbes and their genetics.

CO 3. To become familiar with plant diseases.

Paper XV: Plant breeding biostatistics ethnobotany and horticulture.

By the end of this Course students should be able to know about:

CO 1. To understand by using modern plant breeding techniques.

CO 2. Students becomes familiar with role ethno botany in modern medicine.

CO 3. To understand applications of biostatistics in plant sciences.

CO 4. Students becomes familiar with horticulture techniques such as gardening, ornamental plants and nursery management.

Paper XVI: Molecular biology and biotechnology.

By the end of this Course students should be able to know about:

CO 1. To understand DNA structure, replication and gene action

CO 2. Students becomes familiar with DNA recombinant technology, finger printing, Pcr technique and construction of genomic library.

CO 3. Students becomes familiar with gene transfer methods and tissue culture techniques.

B. Sc. (MATHEMATICS)

B.Sc. I Paper I : Calculus

Upon successful completion of the course students will able to:

CO 1. Evaluate the limit and examine the continuity of a function at a point..

CO 2. Understand the consequences of mean value theorems for differentiable functions.

CO 3. Apply Leibnitz theorem to obtain higher derivatives of product of two differentiable functions.

B.Sc. I Paper II : Differential Equations

By the end of this Course students should be able to know about:

CO 1. Understand types of differential equations.

CO 2. Solve different types of ordinary differential equations.

CO 3. Understand applications of differential equations.

Paper III : Elements of Differential Equations

Course Learning Outcomes: This course will enable the students to:

CO 1. identify types of higher order ordinary differential equations.

CO 2. solve different types of higher order ordinary differential equations.

CO 3. understand geometrical interpretation of simultaneous and total differential equations.

Paper IV : Numerical Methods

Course Learning Outcomes: This course will enable the students to:

CO1: find numerical solutions of algebraic, transcendental and system of linear equations.

CO2: learn about various interpolating methods to find numerical solutions.

CO3: find numerical solutions of integration and ODE by using various methods.

CO4: apply various numerical methods in real life problems.

Paper V : DSE9: Mathematical Analysis

Course Objectives: The objectives of course is to understand and learn about

CO 1. The integration of bounded function on a closed and bounded interval

CO 2. Some of the families and properties of Riemann integrable functions

CO 3. The applications of the fundamental theorems of integration

CO 4. Extension of Riemann integral to the improper integrals when either the interval of integration is infinite or the integrand has infinite limits at a finite number of points on the interval of integration

CO 5. The expansion of functions in Fourier series and half range Fourier series

Paper VI : DSE10: Abstract Algebra

Course Objectives: After successful completion of this course the students will able to:

CO 1. Basic concepts of group and rings with examples.

CO 2. Identify whether the given set with the compositions form Ring, Integral

domain or field

CO 3. Understand the difference between the concepts Group and Ring.

CO 4. Apply fundamental theorem, Isomorphism theorems of groups to prove these theorems for Ring.

CO 5. Understand the concepts of polynomial rings, unique factorization domain.

Paper VII: DSE11:Optimization Techniques

Course Objectives: The aim of this course is to:

CO 1. provide student basic knowledge of a range of operation research models and techniques, which can be applied to a variety of industrial and real life applications.

CO 2. Formulate and apply suitable methods to solve problems.

CO3. Identify and select procedures for various sequencing, assignment, transportation problems.

CO 4. Identify and select suitable methods for various games .

CO 5. To apply linear programming and find algebraic solution to games.

Paper VIII: DSE12: Integral Transforms

Course Objective : Students be able to:

CO 1. understand concept of Laplace Transform

CO 2. apply properties of Laplace Transform to solve differential equations

CO 3. understand relation between Laplace and Fourier Transform.

CO 4. understand infinite and finite Fourier Transform.

CO 5. apply Fourier transform to solve real life problems.

Paper IX: DSE9:Metric Spaces

Course objectives :Upon successful completion of this course, the student will be able to:

CO 1. acquire the knowledge of notion of metric space, open sets and closed sets.

CO 2. demonstrate the properties of continuous functions on metric spaces.

CO 3. apply the notion of metric space to continuous functions on metric spaces..

CO 4. understand the basic concepts of connectedness, completeness and

compactness of metric spaces,

CO 5. appreciate a process of abstraction of limits and continuity to metric spaces,

Paper X: **DSE10:Linear Algebra**

Course Objectives: Upon successful completion of this course, the student will be able to:

CO 1. understand notion of vector space, subspace, basis.

CO 2. understand concept of linear transformation and its application to real life situation.

CO 3. work out algebra of linear transformations.

CO 4. appreciate connection between linear transformation and matrices.

CO 5. work out eigen values, eigen vectors and its connection with real life situation.

Paper XI: DSE11: Complex Analysis

Course objectives: Upon successful completion of this course, Students will

CO 1. learn basic concepts of functions of complex variable

CO 2. be introduced to concept of analytic functions.

CO 3. learn concept of complex integration and basic results thereof.

CO 4. be introduced to concept of sequence and series of complex variable..

CO 5. learn to apply concept of residues to evaluate certain real integrals.

Paper XII: DSF12: Discrete Mathematics

By the end of this Course students should be able to know about:

CO 1. Use classical notations of logic: implications, equivalence, negation, proof by contradiction, proof by induction, and quantifiers.

CO 2. Apply notions in logic in other branches of mathematics.

CO3. Know elementary algorithms: Searching algorithms, sorting, greedy algorithms, and their complexity.

CO 4. Apply concept of graph and trees to tackle real situations.

CO 5. Appreciate applications of shortest path algorithms in computer science

B. Sc. (ZOOLOGY)

B.Sc. I. Paper I: Animal Diversity I

By the end of this Course students should be able to know about:

CO 1. Understanding the arrangement of organism or groups of organisms in distinct categories in accordance with particular & well-established plan.

CO 2. Explanation of unity in diversity of organism.

CO 3. Studying specific & scientific names to organism.

CO 4. Collecting information about useful and harmful animals, helps in understanding the nature of habitat.

Paper II: Animal Physiology

By the end of this Course students should be able to know about:

CO 1. Understanding the structure and function of cell & cell organelles.

CO 2. To study animal tissue to improve knowledge about genetic information.it study how organism evolve from a single cell division, get knowledge about unicellular & multi-cellular organisms.

CO 3. Understanding normal function of cell, organ or tissue.

Paper IV: Genetics

By the end of this Course students should be able to know about:

CO 1. Study of structure function, molecular organization, growth, reproduction and genetics of cell.

CO 2. Study of Mendelian and Post Mendelian genetics.

CO 3. Study of Linkage and Crossing Over.

CO 4. Study of Mutations.

CO 5. Understanding evolutionary history of certain animals, study their sericulture which is one of the longest agro industries & silk is used in the manufacture of woven materials.

B.Sc. II Paper V: Animal Diversity II

By the end of this Course students should be able to know about:

CO 1. Understanding the arrangement of organism or groups of organism in distinct categories in accordance with particular & well established plan.

CO 2. Understanding General features and Classification up to orders; Venomous and non-venomous snakes, Biting mechanism in snakes.

CO 3. Study General features and Classification up to orders; Osmoregulation in Fishes.

Paper VI: Biological Chemistry

By the end of this Course students should be able to know about:

CO 1. Study of chemistry within living organisms.

CO 2. Perceiving the chemical components & chemical structure in organisms.

CO 3. Study how body functioning with the help of chemical molecules & elements.

Paper VII: Reproductive Biology

By the end of this Course students should be able to know about:

CO 1.Study outline and histology of female and male reproductive system

CO 2. Functional anatomy of female and male reproduction.

CO 3. Understand infertility in male and female: causes, diagnosis and management; Assisted

CO 4. Reproductive Technology: sex selection, sperm banks, frozen embryos, in vitro fertilization, ET, EFT.

Paper VIII: APPLIED ZOOLOGY

By the end of this Course students should be able to know about:

CO 1. Improving proper knowledge about Transmission, Prevention and control of diseases Tuberculosis, typhoid..

CO 2. Understanding Insects of Economic Importance.

CO 3. Study the principles of poultry breeding, Management of breeding stock and broilers, Processing and preservation of eggs.

Programme: Bachelor of Commerce (B.Com.)

COMMERCE

B. Com. Part I: Sem. I and II Principles of Business Management: (Compulsory Paper) Paper I & II

After studying this course, students:

CO1. Understand the management and administrations in the business

CO2. Acquire theories of management by experts to develop managerial role.

CO3. Implement of the functions of management viz. planning, organizing, decision making controlling etc. in the business to achieve the goals of business.

CO4. Learn motivational aspects and the promotional keys by motivation in the business.

CO5. Enhance leadership and the ways of business communication.

B. Com. Part I: Sem. I and II Financial Accounting: (Compulsory Paper) Paper I & II

After studying this course, students:

CO1. Understand the financial accounting process in the business.

CO2. Acquire the knowledge of financial accounting.

CO3. Prepare the financial statements practically with accounting principles, conventions and standards.

CO4. Study the role of Chartered Accountants, Company Secretaries, Cost Accountants, Tax consultants' accountant, auditor, tax consultants.

CO5. Participate in different commercial and economic activities

CO6. Enhance qualities through practical accounting system with tally with GST

B. Com. Part I: Sem. I and II Principles of Marketing: Paper I& II

After studying this course, students:

CO1. Understand the concept of marketing management to develop marketing skills

CO2. Learn consumer behavior in the business environment through marketing management.

CO3. Gain the implementation of 4Ps in the marketing mix.

CO4. Enhance research qualities, marketing segment, target marketing, positioning in the business after learning marketing aspects.

CO5. Understand service marketing, as expected in the marketing environment.

B. Com. Part I: Sem. I and II Micro Economics: Paper I & II

After studying this course, students:

CO1. Know the decision making of consumers

CO2. Identify the nature of revenue and cost of production.

CO3. Comprehend the demand function and production function.

CO4. Realize various production theories.

CO5. Clarify the meaning of marginal, average, total revenue marginal, average and total cost and its implication

CO6. Understand pricing in different markets & judge the factors responsible for pricing

B. Com. Part I: Sem. I and II Insurance Paper I &II

After studying this course, students:

CO1. Enable to understand meaning, scope, need and characteristics of insurance

CO2. Get information about various procedures of taking life insurance policy.

CO3. Know about the structure, setup and function of life insurance business.

CO4. Know about the various type of insurance.

B. Com. Part II: Sem. III and IV Fundamentals of Entrepreneurship: Paper I & II

After studying this course, students:

CO1. Understand the concept of entrepreneurship and qualities, functions and role of entrepreneurship in changing environment.

CO2. Understand the obstacles in entrepreneurship in business career.

CO3. Know the entrepreneurship development concept and different institutions for its development.

CO4. Understand the concepts of MSMEs, its importance and MSME policies.

CO5. Understand women entrepreneurship, their problems and remedies to solve the problems as well as getting knowledge of rural entrepreneurship.

CO6. Understand about project report of small scale units to prepare the project report in his business career and also getting insights of stories of successful entrepreneurs such as Tata, Dhirubai Ambani 'Vargis Kurian, Vitthal Kamat and getting motivated to start the career in business.

B. Com. Part II: Sem. III and IV Corporate Accounting: Paper I & II

After studying this course, students:

CO1. Understand the issues of shares and debenture with different aspects of market and get the knowledge of how to make an investment in financial securities in the stock market

CO2. Get the knowledge of how to establish a company and to determine the profitability before and after incorporation of the company.

CO3. Receive the knowledge of Tally software for computerized accounting, enabling them to get a job opportunity as an accountant.

CO4. Understand the role of accounting standard in respect of companies and learn the practical issues related.

CO6. Develop ability to understand computer application through Tally and become employable in firms, companies.

CO7. Get ability to demonstrate accounting for issue of debentures and redemption of debentures.

CO9. Simulate practice of preparing financial statements as per the provisions of Indian Companies Act 2013.

B. Com. Part II: Sem. III and IV Macro Economics: Paper I & II

After studying this course, students:

CO1. Identify the basic concept and theories of Macro Economics

CO2. Get awareness about changing Macro Economics Policies and Theories

CO3. Understand various concepts such as GDP, GNP, NNP, Per Capital, Disposable income, Per capita income and national income.

CO4. Identify the factors determining gross domestic product, employment, the general level of prices and interest rate.

CO5. Realize the law of markets, consumption function and investment function.

CO6. Judge the role of fiscal policy, monetary policy in developing economy.

CO7. Know features, phases and theories of trade cycle.

B. Com. Part II: Sem. III and IV Money and Financial System

After studying this course, students:

CO1. Understand the nature, functions and issues related to money, banking and non banking financial intermediaries and financial system.

CO2. Know about changing role of banking and financial intermediaries in the process of growth & development.

CO3. Realize the term structure, role and functions of RBI, NBFIs, Development Banks, Commercial Banks, Money Market, Capital Market and Forex .

CO4. Get knowledge of the changing paradigms in Indian Banking.

B. Com. Part II: Sem. III and IV Business Statistics

After studying this course, students:

CO1. Make familiar with statistical tools which are relatively used in business.

CO2. Impart the ability to collect present, analyze and interpret data

CO3. Predict trend values by using list square methods in regression

CO4. Understand how to collect, present, analyze and interpret the data.

B.COM. III: SEM V & VI Modern Management Practices: Paper I& II

After studying this course, students:

CO1. Understand the modern concepts of management practices about the growing size and complexity of business.

CO2. Understand the concept of strategic management. Getting known with the corporate governance and social responsibility from different areas of social responsibilities

CO3. Understand the new concepts in management.

CO4. Get known with modern management and understanding MBO.

B.COM. III: SEM V & VI Business Regulatory Framework (Paper I& II)

After studying this course, students:

CO1. Get provided with fundamental information about the Indian Legal System related to the business.

CO2. Get knowledge the laws, functions of the court.

CO3. Understand the basic principles of law that apply to business organizations

CO4. Study business law in the global context.

CO5. Gain knowledge of legal environment in which a consumer and business operations

B.COM. III: SEM V & VI Advanced Accountancy (Paper I, II, III & IV)

After studying this course, students:

CO1. Understand the utility of advanced accountancy, auditing, taxation in practices with accounting software.

CO2. Visit banks, insurance companies etc for better understanding of working and functioning

CO3. Develop their potential and skill for employment opportunities as accountant, auditor and tax consultant in various firms.

CO4. Pursue the master degrees for advanced and professional knowledge.

B.COM. III: SEM V & VI Business Environment: Paper I& II

After studying this course, students:

CO1. Understand characteristic features of structural changes in Indian Economy

CO2. Comprehend the nature and impact of new economic reforms on the Indian Economy

CO3. Know the problem of unemployment, poverty, rising economic and social inequality and problems of regional imbalances in India

CO4. Evaluate the changing role of agricultural, industrial and service sector and foreign sector in Indian Economy

CO5. Measure the problems and prospects of cottage and small scale industries, and industrial sicknesses

B.COM. III: SEM V & VI Co -Operative Development: Paper I& II

After studying this course, students:

CO1. Understand the Principles of Co–Operation and Co–Operative Movement in India.

CO2. Know the Structure, types, functions, problems and remedies agricultural and Non – agricultural Credit Co – operative institution.

CO3. Evaluate the impact of Globalization on co – operative Movement.

CO4. Get basic knowledge of cooperative society and its administration.

CO5. Understand New Economic policy since 1991 and co – operative Movement.

PRINCIPAL
KRISHNA MAHAVIDYALAYA
RETHARE (BK.), TAL. KARAD