2.6.1 PROGRAM OUTCOME, PROGRAM SPECIFIC OUTCOME, AND COURSE OUTCOME

DEPARTMENT OF ARTS:

PROGRAM OUTCOME: After completing bachelor program in Arts, a student will be able to develop:

1. Critical Thinking: Ability to identify, construct and evaluate arguments, ability to engage in reflective and independent thinking, integrates diverse sources of knowledge in solving problems.
2. Communication Skills: Develop oral and written skill for effective Communication, active participation in group activities will improve active learning skills and expressive skills and self confidence.
3. Social Adoptability Skills: Ability to communicate and share our thoughts & feeling with others, develop social interactions and become socially responsible individual (human being).
4. Ideal Citizen: Respect the value, principle ethics and contribute to society and community engage in civic responsibility and participate in civic life through volunteering.
5. Ethical Value: Inculcate ethical, moral and human values.
6. Environmental Awareness: Border understands of the local, national and global environment issues.
7. Employability: Preparing students for job prospect in organized sector.

PROGRAM SPECIFIC OUTCOME OF GEOGRAPHY

• To learn the location of places and the physical and cultural characteristics of those places in order to function more effectively in our increasingly interdependent world.

• To understand the geography of past times and how geography has played important roles in the evolution of people, their ideas, places and environments.

• To develop map of territory, country and the world to understand the —where of places and events.

• To recognize spatial distributions at all scales — local and worldwide — in order to understand the complex connectivity of people and places.

• To appreciate Earth as the homeland of humankind and provide insight for wise management decisions about how the planet's resources should be used.

• To understand global interdependence and to become a better global citizen.

COURSE OUTCOMES:

B.A. - I Subject: Geography

Paper - I: Elements of Geomorphology understand the structure of different part of earth and applied Geomorphology.

Paper -II: Introduction to Geography and Human Geography Understand different part of geographical knowledge and evolution of Geographical thoughts.

Paper -III: Practical Geography Map making and scale of the maps and diagrams.

B.A. - II Subject: Geography

Paper -I: Physical Geography -II (Climatology and Oceanography) Demonstrate knowledge of physical condition of atmosphere and oceans and general problems of climatic conditions.

Paper -II: Regional Geography with Special Reference to North America Understand regional Geography of North America their physical and culture condition.

Paper -III: Practical Geography Making projections and statistical methods.

B.A. - III Subject: Geography

Paper -I: Resources and Environment Understand importance of resources and environment and related problems.

Paper -II: Geography of India (with Special Reference to Chhattisgarh) Knowledge of physical and cultural characteristics of India and Chhattisgarh state.

Paper -III: Practical Geography Understand Topographical Sheets and socio-economic survey of village.

PROGRAM SPECIFIC OUTCOME OF POLITICAL SCIENCE

1. Understand the basic concept of politics.

2. Inculcate the basic principles of Indian constitution.

3. Understand the application of human rights in practice.

4. Primary knowledge of public administration.

5. Analyze the political behavior of voters.

Course Outcomes:

B.A.-I Subject: Political Science

Paper-I:

1. Know about state, its essential elements and different theories of the origin of state and basic knowledge about political science.

2. Know about citizenship equality liberty and many other important things.

Paper-II:

1. Know about constitution its main characteristics and fundamental rights and duties.

2. Know about state government, Election Commission and electoral reform.

B.A.-II Subject: Political Science

Paper-I:

1. Know about main western political thinker just like Plato, Aristotle, Hobbes, Locke, Rousseau and their thoughts about political institutions.

2. Know the different principles given by various thinkers.

Paper-II:

1. Know the main political system which is adopted by different countries.

2. Know about the main characteristics of political system of different countries like Britain, China, America and Switzerland.

B.A.-III Subject: Political Science

Paper-I:

1. Know about the significance of international politics and its impact on different countries.

2. Know about the Disarmament, Globalization and Diplomacy etc.

Paper-II:

1. Knowledge of Public Administration its importance and scope.

2. Knowledge about government's part like legislature, executive and judiciary and its control on administration.

PROGRAM SPECIFIC OUTCOME OF SOCIOLOGY

Understand the nature and structure of human society

To Analysis human Society and its likeness and difference

Determine Social variables like status, Role & Cast Difference.

Understand the Structural and Functional changes of India.

Course Outcomes:

B.A. I Subject Sociology

Paper I: To gain general knowledge of sociology, Family and kinship, Social mobility and stratification. Concept of development, progress and social change.

Paper II: To gain knowledge emergence of sociology, know about main Indian and western social thinker's concept

B.A. II Subject Sociology

Paper I: To understand Indian society, Family and social problems.

Paper II: To understand various concept of crime, Indian social problems like drug, beggary, alcoholism etc.

B.A. III Subject Sociology

Paper I: Concept of tribe, problem of tribes, social change and mobility in tribe.

Paper II: To gain knowledge of research methodologies in sociology, techniques of data collection, social statistics.

DEPARTMENT OF COMMERCE

PROGRAM OUTCOME:

After completing bachelor program in Commerce, a student will be able to develop:

1. Critical Thinking: Develop the ability to completely evaluate new ideas, research findings in evaluation to business and commerce related issues.
2. Communication Skills: Ability to communicate ideas effectively in both written and oral formats develops communicate business analysis to the static holder and clean effective and appreciate manner.
3. Team Spirit: Work collaboratively and productively in group.
4. Social Responsibility: Recognize and understand the ethical and moral responsibility of the individuals and organization in society.
5. Global Citizen: Evolve into a global citizen who understands the duties for the welfare of our society and country.
6. Managerial Skills: Ability to complete knowledge into performance makes business decision through capability to interact and motivate and understand concept, develop ideas and implement strategies.
7. Employability: Prepare students for employment in various fields like charted accountancy, company secretary, banking sector, business management etc.

PROGRAM SPECIFIC OUTCOME: COMMERCE

1. Knowledge of taxation and interest system.
2. Management and leadership quality.
3. Beneficial for employment such as banking, insurance, marketing, tax consultation, CA, CS, ICWA etc.
4. Beneficial for opting different choices of business and trads.
5. Knowledge of marketing such share, bonds, mutual funds, international marketing etc.
6. Determine cost price and selling price.
7. Helpful in statistical analysis such as data collection, investigation, tabulation, sampling and classification.

COURSE OUTCOMES:

B.Com. Group I

PaperI: Financial accounting: to impart basic accounting knowledge as applicable to business.

Paper II: Business mathematics: To enable students to have minimum knowledge of mathematics as is applicable to business and economic situations.

Group II

Paper I: business communication: to develop effective business communication skills.

Paper II: business regulatory frame work: to provide a brief idea about the framework of indian business laws.

Group III

Paper I: Business environment: To acquaint the student with the emerging issues in business at the national and international level in the light of the policies of liberalization and globalisation

PaperII: Business economics: To acquaint the students with the principles of business economics as are applicable in business.

B.Com. II

Group I

Paper I: Corporate accounting: This course enables the students to develop awareness about corporate accounting in conformity with the provision of companies act.

Paper II: Cost accounting: this course exposes the student to the basic concept and the tools used in cost accounting.

Group II:

Paper I: Principles of business management: this course familiarises the students with the basic of principles of management.

Paper II: Company law this objectives of ths course is to provide a basic knowledge of the provisions companies act 1956, along with relevant case law.

Group III

Paper I: business statistics: it enable the students to gain understanding of statistical techniques as are applicable to business.

Paper II: Fundamental of enterpreunship: It provides exposure to the students to the enterpreurial culture and industrial growth so as to preparing them to set up and manage their own small units.

B.ComIII :

Group I:

Paper I: Income tax: To enable the student to now the basic of income tax act and its implications.

Paper II: Indirect Taxes: This course aims at imparting basic knowledge about major indirect taxes.

Group II

Paper I: Management accounting: This course will provide the students an understanding of the application of accounting techniques for management.

Paper II: Auditing: This course aims at imparting knowledge about the principles and methods of auditing and therir application.

Optional Group D: Money Banking and Insurance Area

Paper I: Fundamental of Insurance: this course enables the students to know the fundamentals of insurance.

Paper II: Money and Banking System: this course enables the students to know the working of the Indian money and banking system.

DEPARTMENT OF SCIENCE

PROGRAM SPECIFIC OUTCOME: B.Sc.

After completing bachelor program in Science, a student will be able to develop:

1. Critical Thinking: The ability to gather and assess relevant information using abstract ideas to interpret it effectively.
2. Scientific Skills: Ability to understand scientific principles or concept and demonstrate scientific knowledge and skills in scientific reasoning.
3. Communication Skills: Develop oral and written skills to develop the communication, Ability to work productively on team projects with team spirit.
4. Social Adoptability: Inculcate values which provide guidelines for social conduct and social interaction, communication skills are the key to build a strong social support network.
5. Effective Citizenship: Develop into an ideal citizen who performs the duties towards himself, family, society, community and towards the country.
6. Environmental Awareness: Borders understanding of current national and global environmental problem.
7. Ethics: Moral and ethical value are at the development of scientific temper of mind, capacity to think and judge about oneself.

PROGRAM SPECFIC OUTCOME OF BOTANY

- Through seminar presentation students are made stage fear free and they become well worse in the topics assigned to them.
- Through phyto adoption program students are made aware of nurturing the plants.
- Through phyto art exhibition students improved their skill with respect to preparation of articles from plants and know about sustainable use of plants
- The medicinal plantation developed by Botany Department has imparted knowledge regarding traditional and medicinal use of plants.
- Through field visits students are made aware of local flora.
- The students are made aware about the nature and learn vegetations and flora of different area

COURSE OUTCOMES:

B.Sc.-I Subject: Botany

Paper-I General Diversity of Microbes and Cryptogames

1. The student will acquire the knowledge of general diversity of microbes, algae, fungi, Bryophyte and Pteridophyta.

Paper-II Cell Biology and Genetres.

1. Knowledge of cell, cell organelle, genitive material, gene expression and genitive variation.

B.Sc.-II Subject: Botany

Paper-I Diversity of seed plants and their systematics.

1. Diversity of gymnosperms and angiosperms.

2. Knowledge of Geological time scale and Fossils.

Paper-II Structure, development and reproduction in flowering plants.

1. The vegetative and reproductive structure and development of angiosperms.

B.Sc.-III

Paper-I Plant Physiology, Biochemistry and Biotechnology.

1. To know the importance of plant water relation, nutrients, Photosynthesis, Respiration and other life supportive processes in plants.

Paper-II Ecology and utilization of plants.

1. Knowledge about plants and environment and how plants are important and influence of our life.

PROGRAM SPECIFIC OUTCOMES OF B. Sc. MICROBIOLOGY

- On successful completion of this subject the students will gain basic knowledge about Microbiology starting from history, Basic laboratory techniques and basic knowledge about the micro organisms.
- Students will be able to acquire, articulate, retain and apply specialized language and knowledge relevant to microbiology
- Students will acquire and demonstrate competency in laboratory safety and in routine and specialized microbiological laboratory skills

- applicable to microbiological research or clinical methods, including accurately reporting observations and analysis
- Students will communicate scientific concepts, experimental results and analytical arguments clearly and concisely, both verbally and in writing.

COURSE OUTCOME

B.SC. I SUBJECT: MICROBIOLOGY

Paper I: On successful completion of this subject the students will gain basic knowledge about Microbiology starting from history, Basic laboratory techniques and basic knowledge about the micro organisms.
Paper II: The student will gain knowledge of various bio molecules and their functions.

Paper III: Practical training of basic laboratory techniques knowledge about the micro organisms.

B.SC. II SUBJECT: MICROBIOLOGY

Paper I : To understand microbial physiology and metabolism and genetic recombination in prokaryotes**.**

Paper II: To understand biochemical techniques and instruments involved in advance research for betterment of society.

Paper III: Practical training to enable the student to get sufficient knowledge in principles and applications of bio instruments and microbial physiology experiment.

B.SC. III SUBJECT: MICROBIOLOGY

Paper I: To get a brief understanding of molecular biology and recombinant DNA technques.
Paper II: To understand the role of microbes in environment for sustainable development.

Paper III: Practical training to enable student to get sufficent knowledge of recombinant DNA Techniques, and microbial quality control of various environment.

PROGRAM SPECIFIC OUTCOME OF B.Sc. CHEMISTRY :

- Understand the basic principles and concepts underlying the inorganic, organic and physical chemistry and Spectroscopy and Chromatography.
- Comprehend the application of chemistry in various walks of life.
- Perform procedures as per laboratory standards in the areas of analytical chemistry, coordination chemistry, inorganic chemistry, organic chemistry and physical chemistry.
- Able to use instrumental methods of chemical analyses.

COURSE OUTCOMES

B.Sc.-Part- I Subject: Chemistry

Paper-I: Inorganic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe atomic structure on the basis idea of de-Broglie matter-waves, Heisenberg uncertainty principle Schrodinger wave equation and atomic orbital.

2. Describe the shapes of S, p, d orbital's auf-bare and Pauli excessive principle hunt's rule

3. Write down the electronic configuration of elements and calculate EAN.

4. Describe the periodic (IE, EA, EN) trends in periodic table and their application.

5. Describe covalent bond on the basis of valence bond theory, directional characteristics of covalent bond hybridization with example of simple inorganic molecule.

6. Define bond parameters such as bond strength and bond energy and explain percentage ionic character. Ionic solids with reference to ionic structure, radius ratio, lattice defect, and semiconductor.

7. Describe lattice energy, salvation energy, polar sing power, Fagan's rule and metallic bonds.

8. Comparative study of s-block elements and salient feature of hydrides, salvation & compellation tendencies, function in bio systems and alkyl & aryls, chemistry of noble gases.

9. Comparative study of p-block elements, halides, hydrides, oxides and oxy acids of B, AI, N & P and their compounds.

10. Describe the principle involved in the detection of acids and basic radicals including interfering radicals.

Paper-II: Organic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe resonance, hyper conjugation, inductive effects, and H- bonding.

2. Describe mechanism of organic reaction including clearage of bond types of reagent and reaction intermediates.

3. Describe optical and geometrical isomerism including resolution, inversion, retention, recriminations, relative & absolute configuration and nomenclature.

4. Describe the cycloalkanes, Bayer's strain theory, and theory of stainless ring and banana bonds and reaction mechanism benzene & naphthalene their structure.

5. Study of chemical reactions of Alcohols, Alkanes, dienes and alkynes including elucidation, Diels-alder reaction.

6. Study of alkyls halides and aryl halides, mechanism and stereochemistry of nuclei Phillies substitution and elimination reaction.

Paper-III: Physical Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe the mathematical chemists including logarithmic relation, cure sketching, linear graph, straight line with slope and intercept.

2. Determine and workout integration and differentiation, permutation combination and probability.

4. Describe molecular velocities - RMS, average and most probable velocities, Maxwell's law and other relevant details including J-T effect and lignifications of gases.

5. Describe ideal, real gases and derivation including Vander - Waal's equation.

6. Describe the liquid state, viscosity and surface tension, ideal and no ideal solutions.

7. Describe the colloid properties relate to vapor pressure osmosis, boiling and freezing points, molar masses and vent Hoff factor, Liquid crystals, emulsion, micelle, gel.

8. Describe the solid state - classification, symmetry, X-ray diffraction, miller indices and identification of unit cell.

9. Describe the chemical kinetics- rate of reaction, order of reaction and their determination.

10. Describe the catalysis - homogeneous and heterogeneous, industrial applications of catalysis.

Lab Course:

The aim of the this is to deliver practical knowledge and the implementation of the concepts studied.

B.Sc.-Part- II Subject: Chemistry
Paper-I: Inorganic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe the characteristic properties of d-block elements and elements of first transition series, their binary compounds and complexes.

2. Describe the chemistry of elements of second and third transition series.

3. Describe oxidation and reduction, use of red-ox potential data and red-ox diagrams.

4. Describe coordination chemistry, Werner theory, EAN, chalets, nomenclature, isomerism, VBT.

5. Describe the chemistry of lanthanides and actinides.

6. Describe acids and bases by Arrhenius, bronzed- lowery, Lax-flood, solvent system and Lewis concepts.

7. Describe the properties and reactions of non- aqueous solvents w.r.t liquid ammonia and liquid Sulpher dioxide.

Paper-II: Organic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe the nomenclature, formation & chemical reactions of dihydric and trihydric alcohols and phenols.

2. Describe mechanism of rearrangements reactions, nudeophilic additions to carbonyl group.

3. Describe oxidation and reduction of aldehydes and ketoses.

4. Describe methods of formation & chemical reactions of carboxylic acid and substituted carboxylic acids.

5. Describe reactivity, structure and nomenclature, basicity, structure of amines.

6. Describe Gabriel phthalamide, Hofmann bromamide azo coupling reactions.

7. Describe orbital picture and aromatic character of pgrrole, furan, thiophene and pyridine.

8. Describe preparation and reaction of in dole, quinoline and iso quinoline and reaction of in dole, quinoline and iso quinoline and electro phallic substitution reactions.

Paper-III: Physical Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe fundamentals of thermodynamics system, internal energy, enthalpy, heat capacity of gases at constant volume and constant pressure.

2. Calculate w, q, du & dh for the liquefaction of expansion of ideal gases under isothermal and adiabatic conditions, entropy and entropy change.

3. Apply phase rule to one, two and three component systems.

4. Describe Nerst distribution law, Henry's law and their application.

5. Describe specific and equivalent conductance & effect of dilution on conductance.

6. Describe applications of Kohlnausch's law and theories of strong electrolytes, transport no. and its determination by different methods.

7. Describe electrochemical cell and its conventional representation pH and pKa.

8. Describe corrosion, types, theories and its prevention. 66

Paper: Lab Course The aim of the this is to deliver practical knowledge and the implementation of the concepts studied.

B.Sc.-Part- III Subject: Chemistry

Paper-I: Inorganic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe metal- lagans bounding in transition metal complexes crystal field theory.

2. Describe the thermodynamics and kinetic aspect of metal complexes, factor affecting the stability of complexes, substitution reaction in square planer complexes.

3. Describe the magnetic properties of the complexes, determination of magnetic susceptibility, L-S coupling, magnetic moments and application of magnetic moment data.

4. Describe the electronic spectra of transitional metal complexes including types of electronic transition, spectroscopic ground state, orgel diagrams, spectra of hexa qua titanium complexion.

5. Describe organo metallic chemistry including definition, nomenclature and classification. Alkyls and aryls of Li, Al, Hg, Sn and Ti.

6. A brief account of metal- ethylene complexes, homogenous hydrogenation and mononuclear carbonyl and their nature of bonding.

7. Describe the bio-inorganic chemistry including essential and trace elements in biological system, the hemoglobin and myogblin, biological role of alkali and alkaline earth metals with special reference to Ca2+ and the nitrogen fixation.

8. Classification of acids and bases as hard and soft.

9. Describe HSAB concept, symbiosis and theoretical basis.

10. Describe inorganic polymers - silicon phosphorus.

Paper-II: Organic Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe the formation, structure and chemical reactions of Grignard reagent, organ zinc and organ lithium.

2. Describe the nomenclature, structure formation and reactions of trios, trio ether, euphonic acids, sylph on amides and sylph on guanidine.

3. Describe the organic synthesis via insolates including acidity of alpha hydrogen's, diethyl Malone's and ethyl ace to ace tale and their synthesis.

4. Describe the chaise condensation, Kato - Enola, taut amorism, alkylation of 1, 3-dithianes and a Kyla ion - acryl ion of enemies.

5. Classification, nomenclature of carbohydrates, mechanism of ova zone formation.

6. Describe the inter conversion of glucose & fracture, glucose to mannose, formation of gluers ides.

7. Describe mechanism of mote rotation, structure of ribose & doxy RI base disaccharides and poly saccharine.

8. Describe the chemistry of fats, oils and detergents including sanctification value, iodine value, acid value, soap and detergents.

9. Describe synthetic polymers polymerization such as free radical vinyl, ionic vinyl, Z-N, vinyl polymerization condensation or step polymerization.

10. Describe the polyester, polyamides, phenol formaldehyde resin urea formaldehyde resin, epoxy resin and rubbers.

11. Describe synthetic dyes, their classification and chemistry.

12. chemistry and synthesis of methyl orange , Congo red, malachite green , crystal violet , phenolphthalein , fluoresce in, alizarins and indigo.

13. Describe the absorption spectra including UV absorption spectroscopy, beer's lamberts law and type of electronic transition, concept of chromospheres and Auto chrome, different shift.

14. Describe infra-red spectroscopy including type of vibration, hook's law, selection rule, intensity of IR bands, finger print region and characteristic absorption of functional gap.

15. Describe the NMR spectroscopy including all parameters such as nuclear shielding, de-shielding, chemical shift, spin-spin splitting coupling.

16. Interpret the PMR spectra of simple organic molecule.

Paper-III: Physical Chemistry

Upon successful completion of this subject the student will be able to:

1. Describe elementary quantum mechanism through black-body radiation, plank's law**,** photoelectric effect and heat capacity and Bohr model of H-Atom.

2. Describe de-Broglie, hypothesis, uncertainty principle, ware function, Schrodinger wave equation complete.

3. Describe elementary quantum mechanism with reference to molecular orbital theory.

4. Describe the spectroscopy and define its basic and spectrophotometer.

5. Describe the rotational spectrum and Vibration spectrum.

6. Describe the electronic spectrum along with concept of PE curves, frank-Condon principle.

7. Describe the photochemistry, law of photochemistry, Je Bloke diagram.

8. Describe the fluorescence, phosphorescence and quantum yield.

9. Describe the physical properties and molecular structure including optical activity, polarization, dipole moment and magnetic properties.

10. Describe the solutions; dilute solution and Collegative properties in details.

Paper- Lab Course The aim of the this is to deliver practical knowledge and the implementation of the concepts studied.

Program Name: B.A./ B.Com. /B.Sc. (Foundation Course I)

DEPARTMENT OF HINDI

PROGRAM SPECIFIC OUTCOME OF HINDI

1. To be able to speak in Hindi and develop confidence in the Skills, Listening, Speaking readings writing Communicating.

2. Vocabulary Buildup and required to structure out their thoughts in hindi language.

3. Practically learn the Language Techniques.

4. to Identification of Problem Solving Self Expression, Presentation in hindi language.

5. Preparation for higher Education.

6. To encourage the students with T.V. Medias or Mass Medias.

COURSE OUTCOME

B.A./ B.Com. /B.Sc. part I: To impart knowledge of grammer and vocublary in hindi language.

B.A./ B.Com. /B.Sc. Part II: To be able to speak in Hindi and develop confidence in the Skills, like readings writing and correspondence

B.A. / B.Com. /B.Sc. Part III: To enhance writing skills like report for Media, Press

Program Name: B.A. / B.Com. /B.Sc. (Foundation Course II)

DEPARTMENT OF ENGLISH

PROGRAM SPECIFIC OUTCOME OF ENGLISH

1. Students will be acquainted with various literary forms is English.
2. Students will have understanding of various figures of speech.
3. Students will be acquainted with the history of English literature and English language.
4. Students will get an understanding of American English literature.
5. Students will have an understanding of linguistics, its aspects, levels and charteristics.

B.A. / B.Sc. /B.Com. - Part-I Subject: English Language:

On studying this paper, the student will be able to:

1. Development of comprehensive ability.

2. Improvement of vocabulary.

3. Effective communication skills.

4. Inculcation of moral and human values.

5. Acquire knowledge of Indian culture and tradition.

6. Write effectively and coherently.

B.A. / B.Sc. /B.Com. - Part-II Subject: English Language:

On studying this paper, the student will be able to:

1. Ability to discuss and respond to the content of the passage.

2. Knowledge of development of science and information technology.

3. Develop the writing skills through exercises in grammar and composition.

B.A. / B.Sc. /B.Com. - Part III Subject: English Language:

On studying this paper, the student will be able to:

1. Familiarity with values of Indian life and social system.

2. Development of India in the Modern context.

3. Development of linguistic competence and communication skills.

4. Writing skills through essay writing and comprehension