M. S. P. MANDAL'S

DEOGIRI COLLEGE, AURANGABAD

INTERNAL QUALITY ASSURANCE CELL

Programme Specific Outcomes (PSOs)

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❖ **Bloom's Taxonomy and its application in PSOs:**

Benjamin Bloom and his collaborators in 1956 developed a framework to categorize and achieve educational goals. It consists of taxonomy of educational objectives based on six major categories viz Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation.

(a) Knowledge: It involves the recall of methods and processes.

(b) Comprehension: It implies understanding or apprehension being communicated.

(c) Application: It relates with the use of abstractions in particular and concrete situations.

(d) Analysis: It includes the "breakdown of a communication into its constituent elements to make the ideas more clear.

(e) Synthesis: It is the concept of creativity by putting together parts so as to form constructs the knowledge.

(f) Evaluation: It implies the judgments for given purposes.
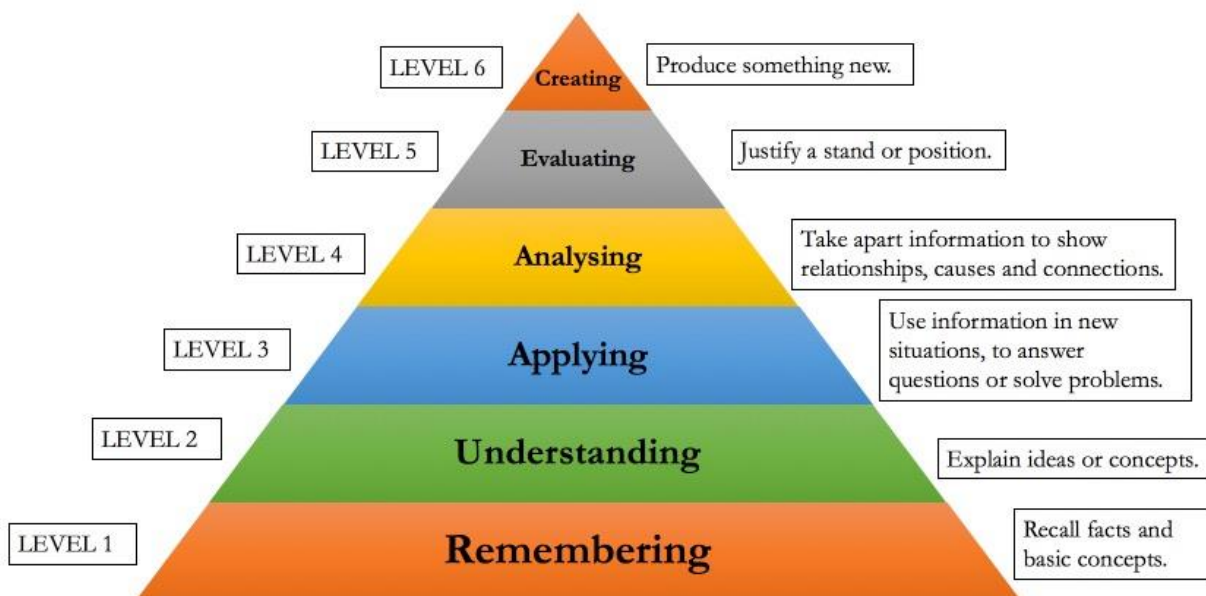
Programme Specific Outcomes: B. A. Marathi

PSO01:   Students will be able to get employability opportunities (**BL6**).

PSO02:   To inculcate human values and their importance in life (**BL5**).

PSO03:   To understand Marathi literature and sensitize the learners towards life shade (**BL2**).

PSO04:   To realize reality and inspire learners for literary creations (**BL2**).

PSO05:   To understand social issues, literature, literary criticism & culture (**BL6**).

PSO06:   To provide employability to the learner in the field of media like T.V. radio, advertisement, translation and prepare for competitive examinations (**BL6**).

PSO07:   To sensitize students for becoming responsible citizens in society (**BL6**).

Programme Specific Outcomes: M. A. Marathi

PSO01:   To provide employability opportunities (**BL6**).

PSO02:   To empower learners with Marathi literature, criticism, and enrich them with research skills (**BL5**).

PSO03:   To inculcate human values among the students (**BL6**).

PSO04:   To understand culture, society and real life situations (**BL6**).

PSO05:   To provide multiple learning opportunities in literature (**BL2**).

PSO06:   To sensitize learners for becoming responsible citizens in society (**BL5**).

Programme Specific Outcomes: B. A. Hindi

PSO01: बी.ए. हिंदी एक परंपरागत उपाधि है। हिंदी भाषा में उपाधि स्तर की पढाई के बाद विद्यार्थियों के लिए रोजगार के कई अवसर प्राप्त होते हैं (**BL6**).

PSO02: यह परंपरागत कोर्स मानवीय मूल्यों संवेदनाओं, इंसानीयत, नैतिकता, जीवन मूल्य, देशभक्ति, सांस्कृतिक पृष्ठभूमि, संस्कार आदि आयामों को लेकर भी विद्यार्थियों को ताकतवर बनाता है (**BL6**).

PSO03: लेखक और कवियों द्वारा लिखे गए विविध विधाओं के पाठ विद्यार्थियों के स्तर, उम्र और मानसिक विकास को ध्यान में रखकर रखे जाते हैं। इन पाठों का उद्देश्य भारत का भविष्य उज्ज्वल और तेजोमय हो ऐसी अपेक्षा होती है (**BL3**).

PSO04: समाचार लेखन, रेडियो वार्ता लेखन, विज्ञापन लेखन, प्रयोजनमूलक हिंदी, संप्रेषणमूलक हिंदी, अनुवाद, मीडिया लेखन, हिंदी में कंप्युटर का ज्ञान, अशुद्धि शोधन आदि पाठों से जुडा पाठ्यक्रम रोजगार तथा हिंदी भाषा की व्यावसायिक, व्यावहारिक और व्यापारिक सफलता को उजागर कर देता है (**BL6**).

PSO05: बी. ए. हिंदी की उपाधि प्राप्ति के बाद कई विद्यार्थी इन कोर्सों में आगे की पढाई के लिए जा चुके हैं। पत्रकारिता, अनुवाद, शिक्षा संस्थानों, उद्योग और व्यापार, बैंक आदि क्षेत्रों में काम कर रहे हैं और जिम्मेदार भारतीय नागरिक होने के नाते अपना योगदान भी दे रहे हैं (**BL6**)

PSO06: हिंदी साहित्य, समीक्षा, प्रादेशिक भाषा साहित्य तथा व्यावसायिक-प्रयोजनमूलक हिंदी के पाठों को पढकर निपुण बना विद्यार्थी एम.ए. बी.एड., एम. फिल., पीएच.डी., पत्रकारिता, अनुवाद जैसे कई क्षेत्रों में अपनी पढाई आगे जारी रखता है (**BL6**)

PSO07: संपूर्ण पढाई के बाद उसके रोजगार के अवसर और उसमें सफल होने का प्रतिशत भी बढ जाता है। अर्थात बी. ए. हिंदी की उपाधि पाने के बाद परिपूर्ण बना विद्यार्थी एक जिम्मेदार इंसान बनकर अपने घर-गांव और देश के लिए योगदान दे रहा है (**BL6**)

Programme Specific Outcomes: M. A. Hindi

PSO01: एम.ए. हिंदी एक पदव्युत्तर उपाधि है। हिंदी भाषा में पदव्युत्तर स्तर की पढाई के बाद विद्यार्थियों के लिए रोजगार के कई अवसर प्राप्त होते हैं और साथ ही अनुसंधात्मक क्षेत्र में विद्यार्थी आगे बढते हैं (**BL3**)

PSO02: इस कोर्स मानवीय मूल्यों संवेदनाओं, इंसानीयत, नैतिकता, जीवन मूल्य, देशभक्ति, सांस्कृतिक पृष्ठभूमि, संस्कार आदि आयामों को लेकर भी विद्यार्थियों को ताकतवर बनाता है (**BL6**)

PSO03: लेखक और कवियों के निजी अनुभवों और व्यापक दुनिया से विद्यार्थी परिचित हो जाते हैं। उनका संघर्षशील जीवन आदर्श मानकर संवेदनाओं, इंसानीयत, नैतिकता, जीवन मूल्य, देशभक्ति, सांस्कृतिक पृष्ठभूमि, संस्कार के पाठ विद्यार्थी पढते हैं (**BL3**)

PSO04: हिंदी साहित्य का विस्तृत परिचय, भाषा वैज्ञानिक अध्ययन, विविध भाषाओं की उत्पत्ति का परिचय, समाचार लेखन, रेडियो वार्ता लेखन, विज्ञापन लेखन, प्रयोजनमूलक हिंदी, संप्रेषणमूलक हिंदी, अनुवाद, मीडिया लेखन, हिंदी में कंप्युटर का ज्ञान, अशुद्धि शोधन आदि पाठों से जुडा पाठ्यक्रम रोजगार तथा हिंदी भाषा की व्यावसायिक, व्यावहारिक और व्यापारिक सफलता को उजागर कर देता है (**BL6**)

PSO05: भारतीय साहित्य का सांस्कृतिक परिप्रेक्ष्य में अध्ययन करना (**BL3**).

Programme Specific Outcomes: B. A. English

After completion of the B. A. English, students will be able to .....

PSO01: Analyze the structure of English phonology (**BL4**).

PSO02: Speak English in an accent that is understood by a majority of English speakers in Europe (**BL6**).

PSO03: Understand the basic principles of phonetics and phonology (**BL2**).

PSO04: Recognize and use of standard descriptive terminology for phonetics and English phonology (**BL6**).

PSO05: Identify and describe some non-standard varieties of spoken English (**BL5**).

PSO06: Know the International Phonetic Alphabet (**BL3**).

PSO07: Understand and evaluate speech mechanism, classification of sounds, description of consonants and vowels, word accent, intonation and phonetic transcription (**BL5**).

PSO08: Understand the noun phrase, verb phrase, adjective phrase, adverb phrase, prepositional phrase, complex phrase and subordinate clauses (**BL3**).

PSO09: Understand the structure of English language (**BL3**).

Programme Specific Outcomes: M. A. English

PSO01: Demonstrate an appropriate level of knowledge in literary history and literary theory (**BL5**).

PSO02: Make obvious the critical and analytical skills in the interpretation and evaluation of literary texts (**BL4**).

PSO03: Look with a sensitized view towards the discrimination amongst people in the society on gender, caste, and racial grounds (**BL5**).

PSO04: Generate theoretically informed interpretations of texts and questions for scholarly inquiry (**BL6**).

PSO05: Exhibit high-level proficiency in literary research (**BL6**).

PSO06: Show proficiency in written and spoken English (**BL3**).

PSO07: Engage in professional activities (**BL5**).

Programme Specific Outcomes: B.A. Sanskrit

PSO01: To acquire linguistic features and literary aspects of Sanskrit language (**BL3**).

PSO02: To acquire moral, social and philosophical values in ancient Sanskrit literature (**BL3**).

PSO03: To develop ability of comparison by the study of ancient and modern Sanskrit education, culture and literature (**BL6**).

PSO04: To encourage learners for the appreciation and creativity of Sanskrit literature (**BL6**).

PSO05: To develop learner's interest in Sanskrit and rejuvenate the language (**BL6**).

PSO06: To be able for higher studies in Sanskrit (**BL6**).

PSO07: To understand moral and human values through the study of Sanskrit literature (**BL4**).

PSO08: To improve communication skills and enhance learner's impressive personality (**BL4**).

PSO09: To apply knowledge in real life situations (**BL3**).

Programme Specific Outcomes: B. A. Sociology

PSO01: To enhance ability to design and implement social research (**BL6**).

PSO02: To compare the quantitative and qualitative methods in developing research methodology (**BL5**).

PSO03: To demonstrate sociological understanding of phenomena - social structures, social institution, cultural practices and multiple axes of difference and inequality (**BL3**).

PSO04: To understand social transactions, relations, formations, control, values and culture (**BL5**).

PSO05: To understand the significance of social institution, caste system, religion, nationalism, integrity, equality and justice (**BL4**).

PSO06:   To apply the knowledge of the works of social reformers all over the nation (**BL3**).

PSO07:   To develop ability to follow a new stream of thoughts and theories of social thinkers (**BL6**).

PSO08:   To understand various social groups and their issues (**BL3**).

PSO09:   To apply the different theoretical and sociological schools and concepts (**BL3**).

Programme Specific Outcomes: M. A. Sociology

PSO01:   To provide sociological understanding of rural social structure, change and development in India (**BL4**).

PSO02:   To impart sociological skills to reconstruct rural institutions and rural development programmes to plan, monitor and evaluate rural development with the aim to change in the Indian society (**BL6**).

PSO03:   To study strategies, programmes and measures adopted in modern society (**BL4**).

PSO04:   To develop a critical outlook at the exciting perspectives and methods to evolve conceptual clarity (**BL5**).

PSO05:   To understand basic characteristics and nature of Indian society (**BL2**).

PSO06:   To equip the students with an understanding of historical, socio-economic and intellectual forces in the rise of sociological theory (**BL6**).

Programme Specific Outcomes: B. A. Economics

PSO01: To analyze cultural, historical, geographical, political, linguistic, and environmental forces shaping the world and recognize the role of an individual within communities to affect the change (**BL4**).

PSO02: To analyze and critically reflect on complex problems incorporating multiple perspectives and innovative thinking (**BL4**).

PSO03: To engage learners in scholarly inquiry to identify and investigate questions of theoretical and / or applied nature.

PSO04: To apply and integrate knowledge with perspectives across interdisciplinary boundaries (**BL6**).

PSO05: To understand personal integrity and professional behavior in scholarly endeavors and in collaborating with others within and beyond the academic community (**BL6**).

Programme Specific Outcomes: B. A. Public Administration

PSO01: To understand and apply the basic concepts of Indian democracy and public administration (**BL3**).

PSO02: To acquire information technology skills to study and practice the public administration (**BL2**).

PSO03: To acquire research skills for critically analyzing the Indian public administration issues (**BL4**).

PSO04: To acquire ability to communicate and interact productively with a diverse and changing workforce and citizenry (**BL6**).

PSO05: To develop / formulate a public policy response to the real world (**BL6**).

PSO06: To develop and evaluate administrative responsibility, accountability, efficiency, diversity, & teamwork within the context of government and nonprofit public service programs (**BL5**).

Programme Specific Outcomes: B. A. Political Science

PSO01: To understand social, economic, historical, geographical, political, ideological and philosophical tradition and thinking (**BL6**).

PSO02: To empower graduates to appear for competitive examinations and postgraduate programme (**BL6**).

PSO03: To understand the need for a constitution and the role of constitution in a democratic society (**BL2**).

PSO04: To explain the governmental mechanism from *Gram Panchayat* to parliament and suggest solutions over issues in its functioning and implementation (**BL5**).

PSO05: To understand political concepts and ideology for analyzing new situations (**BL4**).

PSO06: To acquire skills of political analyst, political party adviser, as a research scholar or freelance political thinker and writer (**BL6**).

PSO07: To understand and apply the political developments towards decentralization and regionalization (**BL4**).

Programme Specific Outcomes: M. A. Political Science

PSO01: To empower the learners for competitive examinations and research (**BL3**).

PSO02: To acquire research skills in political science (**BL4**).

PSO03: To acquire the skills of collection of data, enquiry, primary and secondary methods of collection of data, classification and tabulation of data (**BL4**).

PSO04: To understand and apply research methods and realize the significance of research and finding solutions to specific issues (**BL3**).

PSO05: To apply history and Indian constitution in real life along with philosophical base (**BL3**).

PSO06: To understand the parliamentary system in India (**BL5**).

PSO07: To acquire critical analytical thinking and apply the basic principles of Indian and western political thinkers and scholars (**BL4**).

PSO08: To understand the composition and functioning of Election Commission of India and other state election commissions (**BL2**).

PSO09: To understand the concept, nature and scope of the international relations (**BL2**).

PSO10: To enhance capacity to identify issues and problems relating to the realization of human rights (**BL5**).

Programme Specific Outcomes: B.A. History

PSO01: To understand basics of social sciences, literature and humanities which make learners sensitive and sensible enough (**BL6**).

PSO02: Graduates will acquaint with social, economic, historical, geographical, political, ideological and philosophical tradition and thinking ability (**BL3**).

PSO03: To empower graduates for appearing in competitive examinations and higher studies (**BL6**).

PSO04: To understand human values, frame the base to deal with problems in life with courage and humanity (**BL4**).

PSO05: To ignite the learners for thinking and finding solutions to issues prevailed in human life (**BL4**).

PSO06: To provide base as a responsible citizen (**BL6**).

PSO07: To build the pillars of interdisciplinary research, community leadership and cultural awareness (**BL6**).

Programme Specific Outcomes: M.A. History

PSO01: To make the learner competent for research and competitive examinations (**BL6**).

PSO02: To develop the learner for understanding past, current and future trends in society (**BL6**).

PSO03: To have a deep understanding of the evaluation of human civilizations down the ages - from the prehistoric to the recent times (**BL5**).

Programme Specific Outcomes: B. A. Psychology

PSO01: To empower learners for understanding the connection between psychology and its practical application (**BL6**).

PSO02: To train students for psychological principles which can help to face life challenges (**BL4**).

PSO03: To familiarize the learners to issues that they encounter in their everyday life, such as stress, health, work, personal relationships, communication and self-esteem (**BL4**).

PSO04: To enable students to appreciate how individual behavior is influenced by social and cultural contexts (**BL4**).

PSO05: To understand functioning of dyads, groups and organization (**BL4**).

PSO06: To understand the unique features of the Indian socio-cultural context (**BL2**).

PSO07: To analyze social psychological theories and their applications (**BL4**).

PSO08: To understand and apply normality and abnormality (**BL5**).

PSO09: To understand the nature and course of various abnormal conditions (**BL2**).

PSO10: To acquire skills needed for psychological assessment of abnormal conditions (**BL3**).

PSO11: To create interest in psychological phenomena (**BL6**).

PSO12: To develop awareness of psychological tools, techniques and tests (**BL6**).

Programme Specific Outcomes: M. A. Psychology

PSO01: To create interest in psychological phenomena (**BL6**).

PSO02: To develop awareness of psychological tools, techniques and tests (**BL5**).

PSO03: To acquire the skills of observation (**BL6**).

PSO04: To understand statistical methods with their uses and interpretations (**BL4**).

PSO05: To develop computational skills for enabling learners to analyze the data (**BL4**).

PSO06: To familiarize students with the nature and process of counseling (**BL4**).

PSO07: To acquaint students with various assessment techniques (**BL5**).

PSO08: To expose the students to various types of intervention strategies (**BL4**).

PSO09: To develop computational skills and empower the learners to analyze (**BL5**).

Programme Specific Outcomes: B. A. Home Science

PSO01: To create awareness of scientific use of resources (**BL4**).

PSO02: To develop skills in creating design & making art objects like painting, printing articles and home decor (**BL6**).

PSO03: To develop abilities to apply the knowledge for self-employment as well as entrepreneurship in production, sales, research, teaching, counselor & many careers in government jobs, private hospitals, industries, national, international food organizations like NIN, ICMR, WHO (**BL6**).

PSO04: To build up problem solving skills in students (**BL6**).

PSO05: After completing UG Home-science, learners will be able to secure profitable employment in different sectors (**BL6**).

Programme Specific Outcomes: B. A. Drama

PSO01: To create self-confidence, ideas and personal abilities (**BL6**).

PSO02: To empower imagination, thinking of new ideas and view the surrounding world (**BL5**).

PSO03: To understand characters, roles and the subtext of plays and musicals that allows students to relate better to different situations, backgrounds, and cultures (**BL3**).

PSO04: To encourage learners with compassion and tolerance (**BL3**).

PSO05: To participate in collaborative activities, performance, role plays, rallies, and rehearsing (**BL6**).

PSO06: To develop high concentration for playing, practicing, and performing acts with a focus on mind, the body, and the voice (**BL6**).

PSO07: To enhance communication and observation skills with improvement in vocal projection, articulation, tone of speech and expression (**BL6**).

PSO08: To engage learners in play, humor, and laughter for motivating and reducing the stress (**BL6**).

PSO09: To develop emotional outlet including affection, aggression, tension and controlled environment (**BL4**).

PSO10: To enhance physical fitness, flexibility, coordination, balance, and control (**BL6**).

PSO11: To enhance memory skills of learners (**BL6**).

PSOs of Physical Education

PSO01: **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings (**BL6**).

PSO02: **Communication**: Communicate effectively on physical education, sports, games, sports event management related activities at varied complexity level sports community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions (**BL6**).

PSO03: **Life-long learning**: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of sports and games technological change (**BL6**).

Programme Specific Outcomes: B. A. Music

PSO01: Students acquire knowledge in the field of music which makes them sensitive, cultural and emotionally stable (**BL6**).

PSO02: To understand Indian classical music & its history (**BL2**).

PSO03: To develop learner's interest in Indian classical music and new technologies (**BL3**).

PSO04: To enhance the skills of an artist, musician, singer, and stage performer & in the technical fields - recording studio, music arranger (**BL6**).

PSO05: To understand structure of music in various forms - classical music, western music, folk art etc. (**BL2**).

PSO06: To balance student's mental health (**BL6**).

PSO07: To enhance learner's stage courage, built self-confidence and motivate the learners (**BL6**).

Programme Specific Outcomes: M. A. Music

PSO01: Learner can become as mmusician, music teacher, performer, music arranger, vocal & instrumental artist (**BL6**).

PSO02: Learners understand various musical *Taal's* (**BL3**).

PSO03: Learners can apply theoretical concepts for better understanding through singing and playing instruments (**BL3**).

PSO04: Learners understand various kinds of music - classical, light, western, folk etc. (**BL2**).

PSO05: Learners understand different levels of history & development of Indian classical music (**BL2**).

PSO06: Learners acquire practical skills for studio recording, stage performances, various competitions, reality shows etc. (**BL6**).

PSO07: Learners understand and apply the musical *Gharanas* and musical *Raagas* (**BL3**).

PSO08: Learner gets practical training of music (**BL3**).

Programme Specific Outcomes: B. Sc. Physics

PSO01: To demonstrate knowledge of mechanics, heat, thermodynamics, optics etc. and apply it to analyze a broad range of physical phenomenon (**BL4**).

PSO02: To understand the concept of quantum mechanics, relativity and matter at atomic and molecular level (**BL2**).

PSO03: To understand proficiency in mathematical concepts needed for a proper understanding of physics (**BL2**).

PSO04: To understand the structure of solid material and its properties (**BL2**).

PSO05: To learn laboratory skills, analyze the measurement and conclude the results (**BL4**).

PSO06: To demonstrate written and oral communication skills in communicating physics related topics (**BL4**).

Programme Specific Outcomes: M. Sc. Physics

PSO01: To understand the basic laws of physics, their corollaries, comprehension and their application to natural phenomena within classical mechanics, electricity, magnetism, thermal and statistical physics, modern physics including quantum mechanics and relativity (**BL2**).

PSO02: To develop problem solving skills and relevant mathematical methods to conceptualize and achieve analytical solutions to physics problems (**BL5**).

PSO03: To develop research skills including advanced laboratory techniques, communication skills, apply theoretical knowledge of principles and concepts of physics to practical problems (**BL3**).

PSO04: To enhance critical thinking, hypothesis building, and application of the scientific methods to concepts in physics (**BL4**).

PSO05: To understand physics as a teaching and research career and employability in industries (**BL6**).

Programme Specific Outcomes: B. Sc. Chemistry & Analytical chemistry

PSO01: Students understand the basic and applied principles of chemical sciences (**BL2**).

PSO02: To understand and apply physical properties of matter - melting point, boiling point, surface tension, viscosity, optical activity etc. (**BL2**).

PSO03: To build foundations of advanced knowledge and higher education (**BL6**).

PSO04: Students understand basic mathematical concepts and their applications (**BL2**).

PSO05: Students understand different methods of compound analysis (**BL2**).

PSO06: Students understand the role of chemistry in daily life (**BL2**).

PSO07: Students learn the chemical composition of some of the products of routine use such as fats, oils, soaps etc (**BL4**).

PSO08: Students can handle basic and modern instruments independently (**BL6**).

PSO09: Students understand and follow safe laboratory practices (**BL6**).

PSO10: Students learn problem solving approaches (**BL4**).

Programme Specific Outcomes: M. Sc. Chemistry & Analytical chemistry

PSO01: Students can apply the knowledge of basic concepts to advance studies - named reactions, reagents, heterocyclic compounds, natural products in living organisms and their roles (**BL3**).

PSO02: Students understand the subject deeply and can develop appropriate approaches towards the subject (**BL2**).

PSO03: Students learn the handling of instruments (**BL6**).

PSO04: Students learn different spectral methods of analysis for structure elucidation (**BL6**).

PSO05: Students understand the principles of drugs design and retro-synthetic approach (**BL3**).

PSO06: Students can perform reactions, monitoring them independently and understand techniques for characterizing the products as the foundations of industries (**BL6**).

PSO07: The learners get the basic understandings of research- data generation, collection, conclusions and report writing (**BL2**).

PSO08: The programme enables the learners to qualify competitive examinations such as GATE, SET, and NET-JRF (**BL6**).

PSO09: Students become able to get jobs in industries, laboratories and teaching professions (**BL6**).

PSO10: Students become able to get responsible positions in scientific, industrial and academic sectors (**BL6**).

Programme Specific Outcomes: B. Sc. Mathematics

PSO01: To enhance thinking ability of the learner (**BL4**).

PSO02: To develop the skill of applications of mathematics to real life problems (**BL6**).

PSO03: To study the numerical methods for the problems (**BL3**).

PSO04: Understanding of number systems and their extension (**BL4**).

PSO05: Students can solve differential equations (**BL3**).

PSO06: Students can learn abstract mathematics (**BL2**).

PSO07: To enable learners to generalize ideas in mathematics (**BL6**).

PSO08: To enhance ability to solve linear differential equations of nth order (**BL6**).

PSO09: To conduct the self-evaluations and continuously enrich learners through lifelong learning (**BL5**).

PSO10: To set up mathematical models of real world problems and obtain their solutions (**BL3**).

Programme Specific Outcomes: M. Sc. - Mathematics

PSO01: Learner can work independently (**BL6**).

PSO02: Learner understands algebraic structures (**BL4**).

PSO03: Learner is capable of analyzing, modeling and solving given problems at a high level of abstractions based on logical and structured reasoning (**BL4**).

PSO04: Learner can solve complex analysis (**BL4**).

PSO05: Learner understands the various concepts of real analysis (**BL4**).

PSO06: Learner understands the cornerstones of functional analysis (**BL4**).

PSO07: Learner can understand partial differential equations which are useful in solving many engineering problems (**BL5**).

PSO08: Learners understand concepts in fluid mechanics (**BL2**).

PSO09: Learners acquire problem solving approach (**BL5**).

PSO10: Learners understand fuzzy mathematics (**BL2**).

Programme Specific Outcomes: B. Sc. Botany

PSO01: A graduate of botany acquires various career opportunities (**BL3**).

PSO02: Students acquire ability to work as botanists, work primarily outdoors, in forests, or fields for identification of plants (**BL6**).

PSO03: Students can work in laboratories, museums, botanical gardens, or industries (**BL6**).

PSO04: Students can progress to postgraduate/higher studies in natural science, agriculture, environmental science, and education (**BL6**).

PSO05: Students can work to develop organic farming and bio-fertilizers production (**BL6**).

PSO06: Students gets opportunities in forest department, pharmaceutical industries, botanical garden, landscaping, plant nurseries and breeding techniques (**BL6**).

Programme Specific Outcomes: M. Sc. - Botany

PSO01: Students can become plant pathologists, specialize in diagnosis of plant diseases (**BL4**).

PSO02: Learners can work as plant ecologists, taxonomists (**BL2**).

PSO03: Students can avail the opportunity to become plant evolutionary biologists and taxonomists (**BL6**).

PSO04: Learners can work as plant physiologists and molecular biologists for biochemical analysis (**BL6**).

PSO05: Students get employability opportunity in genetically altered food production, BSI, FRI, Seed companies, Agriculture section, Research Laboratories, Forest Departments, NGOS and different government sectors (**BL6**).

PSO06: Learners can work as plant scientists and in federal agencies (**BL6**).

PSO07: Students can go for self-employment through vermicomposting, Bio-fertilizer, Bio-pesticide production, Mushroom cultivation, Biofuel production, Spirulina cultivation (**BL6**).

PSO08: Students can develop consultancy for bio products (**BL6**).

Programme Specific Outcomes: B. Sc. Zoology

PSO01: To develop scientific principles, behaviors, evolution and physiological aspects of animals (**BL6**).

PSO02: To inculcate qualities of scientific attitude such as - identification, classification, observation, clarity of thoughts and expression, systematic approach, morphological and anatomical knowledge (**BL6**).

PSO03: To empower the graduates for various competitive examinations or higher studies (**BL6**).

PSO04: To update programme knowledge of learners and to study biodiversity (**BL6**).

PSO05: To provide employability opportunity to the learners in diverse fields such as forest department, genetic engineering, zoological survey of India, agricultural sector, academicians and self-business (**BL6**).

Programme Specific Outcomes: M. Sc. Zoology

PSO01: Students can work as research fellows in life sciences (**BL6**).

PSO02: Learners can work as biology teachers (**BL6**).

PSO03: Students can avail the opportunity to become biologists and taxonomists (**BL6**).

PSO04: Learners can work in biotechnology and molecular biology (**BL6**).

PSO05: Learners can work in the forest and agricultural sector (**BL6**).

PSO06: Students can work in the field of animal science and life science (**BL6**).

PSO07: To facilitate learner to integrate in-depth understanding of advanced zoological principles (**BL6**).

PSO08: To understand the basic principles of research (**BL6**).

PSO09: To enhance analytical thinking and ability to solve course problems and involve in group discussions and seminar presentations (**BL4**).

PSO10: To integrate professional ethics in life, organization, society and individual to fulfill the needs of mankind in both spiritual and material aspects (**BL6**).

PSO11: To acquire knowledge for professional development (**BL3**).

Programme Specific Outcomes: B. Sc. Electronics

After completion of the B.Sc. program with Electronics .....

PSO01: Students will acquire electronic skills (**BL6**).

PSO02: Students can become entrepreneurs to maintain electronic domestic appliances (**BL6**).

PSO03: Students can become entrepreneurs to maintain general electronic equipment (**BL6**).

PSO04: Students can opt career in industrial automation (**BL6**).

PSO05: Students can become an entrepreneur in system automation (**BL6**).

PSO06: Learners can progress in communication electronics (**BL6**).

PSO07: Learners can develop own electronic systems for specific purposes (**BL6**).

PSO08: Learners can work in industry (**BL6**).

PSO09: Learners become eligible for higher studies in electronics (**BL6**).

PSO10: Learners can make a career in Internet of Things (IOT) (**BL6**).

Programme Specific Outcomes: M. Sc. Electronics

PSO01: The program prepares students to successfully complete for employment in electronics, manufacturing and embedded fields (**BL6**).

PSO02: Students will get a complete overview of strategies for process control in industries (**BL4**).

PSO03: Students will know all the industrial processes and demonstrate their knowledge in designing the control loops for these processes using PLC and PID (**BL3**).

PSO04: Students can develop small applications in the form of projects which will be useful for society (**BL3**).

PSO05: Students will get the knowledge of different sensors and actuators which are used in the industries (**BL2**).

PSO06: Students will be able to use different apparatus used in a practical laboratory (**BL3**).

PSO07: Students will have the knowledge of biomedical sensors and working of some basic electronic instruments (**BL3**).

Programme Specific Outcomes: B. Sc. Computer Science

PSO01: This programme makes learners aware of the history of computer science and conceptual underpinnings of the subject (**BL3**).

PSO02: Students understand the nature of software development process, including the need to provide appropriate documentation (**BL2**).

PSO03: The programme empowers the graduates to appear for competitive examinations or choose the postgraduate programme of M. Sc. Computer Science (**BL6**).

PSO04: Student understand standard techniques for solving a problem on computers, including programming techniques and techniques of representation of information (**BL2**).

Programme Specific Outcomes: M. Sc. Computer Science

PSO01: Students can utilize and implement hardware and software technologies that provide computing solutions to address the needs of an organization (**BL3**).

PSO02: Student can identify various needs within organization and provide solutions by using computing technologies (**BL3**).

PSO03: Student can apply basic cultural, social, legal, and ethical practices inherent in the discipline of computing (**BL3**).

PSO04: Students understand, analyze and develop computer programs into algorithms, system software, compiler design, data mining, mobile computing and networking for efficient design of computer based systems of varying complexity (**BL2**).

PSO05: Students can understand the principles of programming for applying in a broad range of languages and open source platforms (**BL2**).

PSO06: Students can improve ability of imparting knowledge in real world problems with modern technological tools (**BL3**).

Programme Specific Outcomes: B. Sc. Information Technology

PSO1: Identify, and analyse computer systems and can design solutions to them.

PSO2: Design, implement and evaluate a computer-based system.

PSO3: Apply knowledge of science, mathematics and computing in the core information technologies.

PSO4: Select and apply techniques, skills, and tools necessary for computing practice.

PSO4: Apply ethical principles and responsibilities in IT industry.

PSO5: Analyse local and global impact of computing.

PSO6: Function effectively as a team member or a leader to accomplish a common goal in a multidisciplinary team.

Programme Specific Outcomes: M. Sc. Information Technology

PSO01:   Students are made aware of the history of computer science and information technology and understanding of the subject (**BL2**).

PSO02:   Students understand nature of software development process, including the need to provide appropriate documentation (**BL2**).

PSO03:   Students understand software, hardware and networking skills (**BL6**).

PSO04:   Students understand standard techniques for solving a problem on a computer, including programming and techniques for representation of information (**BL2**).

PSO05:   Students fulfill the needs of IT Industry (**BL6**).

PSO06:   Students acquire sound IT skills and decent job in IT parks and hubs (**BL6**).

PSO07:   Students are empowered with knowledge to appear for competitive examinations (**BL2**).

PSO08:   Students are trained to extract information, formulate and solve problems in a systematic and logical manner (**BL3**).

PSO09:   Students can perform jobs in diverse fields such as science, engineering, industries, survey, education, banking, development-planning, business, public service and self-business (**BL6**).

Programme Specific Outcomes: B. Sc. Bioinformatics

PSO01: Learners understand the biology and information technology (**BL6**).

PSO02: Student can learn primarily about organization, storage, management, and analysis of biological information, usually in a health services environment (**BL6**).

PSO03: Student can maintain and operate computer system in a hospital or help to develop computational programs and systems in medical research facilities (**BL6**).

PSO04: Students can get opportunities to work with doctors by creating a supportive computer network (**BL6**).

PSO05: Students understand designing and manipulating complex databases (**BL6**).

PSO06: Students can create web-based analytical tools and algorithms (**BL6**).

PSO07: Students can develop new softwares for project and research needs (**BL3**).

PSO08: Students will be able to create computer programs that facilitate biological data analysis (**BL6**).

PSO09: Students can conduct basic bioinformatics research (**BL3**).

PSO10: Students can demonstrate proper and safe laboratory practice, equipment, and ability to use basic techniques in several areas and advanced techniques (**BL6**).

PSO11: Students will demonstrate the ability to perform appropriate quantitative analysis, computational, mathematical and statistical approaches for result analysis.

Programme Specific Outcomes: M. Sc. Bioinformatics

PSO01: Students understand the base path to the research work in genetic diseases and medical genomics (**BL2**).

PSO02: Students understand biological approaches and methods of data production in sequencing of human genomes (**BL2**).

PSO03: Students can analyze software data studies applications in biology, chemistry, pharmaceuticals, medicine, and agriculture (**BL3**).

PSO04: Students acquire the base to become an entrepreneur, consultant, medical coder and research analyst in modern biological, medical research and development **(BL3)**.

PSO05: Students understand acquaintance in copyright and patent issues (**BL2**).

PSO06: Students understand the basic techniques in biological sciences and implement   application oriented fields (**BL2**).

PSO07: Students can analyze software data studies for modeling, visualizing, exploring and interpreting data (**BL4**).

PSO08: Students understand proteomics, genomics, cell and molecular biology, genetic engineering, biochemical pathways.

PSO09: Students understand genetic diseases and medical genomics (**BL3**).

Programme Specific Outcomes: B. Sc. Biotechnology

PSO01: Graduates understand biotechnology, science and engineering concepts to solve problems (**BL3**).

PSO02: Graduates will be able to identify, analyze and understand problems related to biotechnology and find valid conclusions with basic knowledge in biotechnology (**BL4**).

PSO03: Graduates can design and develop solutions to biotechnology problems (**BL6**).

PSO04: Graduates can design, perform experiments, analyze and interpret data for investigating complex problems in biotechnology and related fields (**BL6**).

PSO05: Graduates can decide and apply appropriate tools and techniques in biotechnological manipulation (**BL5**).

PSO06: Graduates can justify societal, health, safety and legal issues and understand responsibilities in biotechnological engineering practices (**BL2**).

PSO07: Graduates will be able to understand the need and impact of biotechnological solutions on environment and societal context keeping in view the need for sustainable solutions (**BL5**).

PSO08: Graduates will have knowledge and understanding of related norms and ethics in biotechnology product / technique development (**BL2**).

PSO09: Graduates will develop oral and written communication skills (**BL6**).

PSO10: Graduates will have thorough knowledge in biotechnology and will also be ready to engage themselves in lifelong learning (**BL2**).

PSO11: Graduates will be able to demonstrate knowledge of project and finance management in biotechnology problems (**BL3**).

Programme Specific Outcomes: M. Sc. Biotechnology

PSO01: To provide an introduction to the basic concepts of Biotechnology and its recent advances (**BL2**).

PSO02: To have a better understanding of advanced biochemistry, cell biology, molecular biology, immune technology, and microbial biotechnology (**BL2**).

PSO03: To understand the advanced sections of biotechnology such as genetic engineering, nano-biotechnology, computational biology and medical biotechnology (**BL3**).

PSO04: To provide necessary theoretical and practical experience in all divisions of biotechnology (**BL2**).

PSO05: To pursue a professional career (**BL6**).

PSO06: To provide broad exposure to various societal, ethical and commercial issues in the various aspects of biotechnology (**BL3**).

Programme Specific Outcomes: B. Sc. Geology

PSO01: Students understand earth & planetary systems with physical and chemical changes (**BL2**).

PSO02: Students understand depositional strata of the ocean floor and rocks (**BL2**).

PSO03: Students understand the interior of earth (**BL2**).

PSO04: Students can investigate composition of earth materials and geological processes to locate and exploit its mineral resources (**BL5**).

PSO05: Students will be able to investigate geological phenomena such as earthquakes, volcanoes and attempts to predict and minimize their damaging effects (**BL5**).

PSO06: Students will get opportunities in geology, mining, water purification, engineering, competitive examinations, environmental

companies, geologists in Geological Survey of India (GSI), Central Ground Water Board (CGWB), Oil and Natural Gas Commission (ONGC) and Indian Space Research Organization (ISRO) (**BL6**).

PSO07: Students will get an opportunity as employment, consultant and research in hydrological projects and geotechnical investigations (**BL3**).

Programme Specific Outcomes: M. Sc. Geology

PSO01: Students understand basics of geology, physical and chemical changes occurring on the surface of earth and apply for studying ocean and interior of the earth (**BL5**).

PSO02: Students can investigate composition of earth materials, locate and exploit its mineral resources (**BL5**).

PSO03: Students can investigate geological processes to resources. Students can investigate geological phenomena such as earthquakes and volcanoes and their damaging effects (**BL5**).

PSO04: Students can work for oil, mining, water, engineering, and environmental companies, universities, government geological surveys, and research laboratories (**BL6**).

PSO05: Students can work in medical and health sciences with a new emerging field of medical geology (**BL3**).

PSO06: Students acquire deep understanding of geology, applied geology, geochemistry, geophysics and petroleum geology and apply it in geological surveys (**BL3**).

PSO07: Students find career opportunities in Geological Survey of India (GSI), Central Ground Water Board (CGWB), Oil and Natural Gas Commission (ONGC), Indian Space Research Organization (ISRO) and so on (**BL6**).

PSO08: Geographical Information System (GIS) based programming in geology gives the better positions in government and private sectors as GIS specialists (**BL6**).

Programme Specific Outcomes: B. Sc. Environmental Science

PSO01: Student understand environment related issues (**BL2**).

PSO02: Students are made aware of environmental pollution (**BL2**).

PSO03: Students are familiarized with industrial safety and environmental hazards (**BL2**).

PSO04: Students can apply preventive measures for environmental pollution (**BL3**).

PSO05: Students are made aware of water, soil and noise pollution (**BL3**).

Programme Specific Outcomes: M. Sc. Environmental Science

PSO01: Students are able to learn basic and applied components of environment and interdisciplinary approach to study the environmental systems (**BL2**).

PSO02: Students will be able to handle environmental issues related with various kinds of human activities, mostly local and global problems (**BL3**).

PSO03: Students can apply knowledge for addressing the environmental issues and can find sustainable solutions (**BL3**).

PSO04: Students understand and apply the knowledge for conservation of natural resources with environmental needs and survival of life (**BL3**).

PSO05: Students are made aware of environmental issues and need for environmental awareness (**BL3**).

PSO06: Students can search sustainable and compete in a competitive world (**BL3**).

PSO07: Students can interpret and analyze quantitative data (**BL4**).

PSO08: Students can apply theoretical concepts for protecting earth's environment and natural resources on the earth (**BL2**).

PSO09: Students can get job opportunities in government / private industry sectors (**BL3**).

PSO10: Students can apply for jobs in SPCB, CPCB, research institutes, NGO, educational institutes, consultancy and various industries (**BL6**).

Programme Specific Outcomes: B. Sc. Microbiology

PSO01: Learners understand basics of medicine, agricultural, food sciences, ecology, genetics and biochemistry (**BL2**).

PSO02: Learners can understand basic and applied aspects of microbiology, cytology, physiology, ecology, genetics, molecular biology and taxonomy (**BL2**).

PSO03: Students can apply theoretical principles to address practical problems in medical microbiology, immunology, public health microbiology, food & dairy microbiology, agricultural microbiology & industrial microbiology (**BL3**).

PSO04: Students acquire knowledge of medical science, ecology, agriculture and biotechnology (**BL3**).

PSO05: Students will get career opportunities in industries such as food and dairy, agro based biotechnology industries, distilleries, beverages and pharmaceuticals (**BL3**).

PSO06: Students get opportunity to work as medical technologist, clinical or veterinary microbiologist, supervisors or laboratory managers, environmental microbiologist, in pollution control board, water and land management, public health department (**BL6**).

PSO07: Students can get an opportunity for self-employment- mushroom cultivation, plant tissue culture, fermented food products, small scale units and consultants (**BL6**).

Programme Specific Outcomes: M. Sc. Microbiology

PSO01: After PG course in Microbiology, the learner has a wider scope to work as research associate in microbiology, biotechnology, molecular biology, biochemistry, environmental science, and medical microbiology (**BL3**).

PSO02: The learner can get career opportunities as a scientist in virology research center, as research director, as teacher in colleges and universities (**BL3**).