Palus Shikshan Prasarak Mandal's
ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS
PROGRAM OUTCOMES

SR. NO.	PROGRAMME	PROGRAM OUTCOMES
1	B.A.	After the completion of the B. A. Programme, the students will be able: 1. To develop capabilities of communication skills 2. To understand knowledge in the field of humanities. 3. To be cultured and good citizen of India 4. To get employment 5. To use soft skills 6. To be social and culturally aware 7. To make all round personality development of the learners 8. To develop conscious leaders and problem solvers.
2	**B.COM.**	After the completion of the B. Com. Programme, the students will be able: 1. To understand the principal and areas of management. 2. To acquire entrepreneurship qualities and skills. 3. To understand basic accounting knowledge as applicable to business. 4. To accept the changing role of business in the process of Globalization. 5. To understand basic knowledge of statistical techniques applicable to business. 6. To understand the concepts in Insurance, Banking, Marketing and e-commerce,

3	B.Sc.	After the completion of the B. Sc. programme, the students will be able to: 1. develop inquiring minds and curiosity about science and the natural world 2. acquire knowledge, conceptual understanding and skills to solve problems and make informed decisions in scientific and other contexts 3. develop skills of scientific inquiry to design and carry out scientific investigations and evaluate scientific evidence to draw conclusions 4. communicate scientific ideas, arguments and practical experiences accurately in a variety of ways 5. think analytically, critically and creatively to solve problems, judge arguments and make decisions in scientific and other contexts 6. appreciate the benefits and limitations of science and its application in technological developments 7. understand the international nature of Science and the interdependence of science, technology and society, including the benefits, limitations and implications imposed by social, economic, political, environmental, cultural and ethical factors 8. demonstrate attitudes and develop values of honesty and respect for themselves, others, and their shared environment.

PROGRAM SPECIFIC OUTCOMES AND COURSE OUTCOMES

SR. NO.	PROGRAM SPECIFIC	PROGRAM SPECIFIC OUTCOMES
1	MARATHI	1. To understand importance of language in day to day like 2. To understand appreciate Marathi literature 3. To learn various forms of Marathi literature 4. To get interest in reading Marathi literature. 5. To understand to creative process and nature of literature 6. To be teacher/professor/translator/writer/reporter/interpreter/editor 7. To know difference formal and internal use of language.
2	HINDI	1. To prerogative Hindi as national language. 2. To make use of Hindi in day-to-day life 3. To know Hindi literature and its various forms. 4. To know the difference between formal and informal use of language 5. To develop communication skill in Hindi 6. To be teacher in specific language

3	ENGLISH	After completion of this course, students would be able to: 1. Enhance their linguistic competence. 2. Describes object, people and places. 3. Improve writing and speaking skills. 4. Improved literary competence through short stories, poems and essays. 5. Understand the process the creative writings in English
4	HISTORY	1. To get acquainted with the history of Maratha 2. To study the comprehensive history of Chhatrapati Shivaji 3. To understand events of freedom movement of India & the contribution of the freedom fighters. 4. To comprehend the history of world revolution. 5. To understand the role of social reformer. 6. To understand the history of ancient India. 7. To comprehend modern history of Maharashtra. 8. To study of history various countries in the world. 9. To understand the change & impact of revolutionary movement.
5	GEOGRAPHY	1. To acquaint the students with distinct dimensions of India. 2. To understand the physical setup of the country. 3. To focus the climate of India and mechanism of monsoon of India. 4. To get information about soils in India. 5. To get information about vegetation in India.
6	ECONOMICS	1. To introduce the students to the Indian economy. 2. To develop an understanding of challenges facing the lndian economy. 3. To acquaint the students with structure of the Indian economy and changes taking place there in. 4. To acquaint the students with the policies and performance of major sectors in Indian Economy. 5. To explain the economic reforms introduced in India since 1991.
7	POLITICAL SCIENCE	After completion of this course, students would be able to 1. Understand the political theories 2. Understand thoughts and biographies of great political thinkers 3. Understand structures, functions and the working of political institutes in India 4. Understand the structure of constitution of India 5. Pursue Master courses in Political Science, Education and Social Work.

PROGRAM SPECIFIC OUTCOMES (PSO)
(B.COM.)

SR. NO.	PROGRAM SPECIFIC NAME	PROGRAM SPECIFIC OUTCOMES
1	INSURANCE	1. To Impart the knowledge of the principles of Life Insurance and their importance. 2. To give exposure to the provisions of fire and Marine Insurance and their increasing importance. 3. To provide skill and knowledge to become an insurance Agent. 4. To understand various rules and regulations required for insurance business
3	ACCOUNTANCY	1. Student will demonstrate progressive effective domain development of values, the role of accounting in society and business. 2. Student will learn relevant financial accounting carrier skill, applying both quantitative and qualitative knowledge to their future carrier in business. 3. Student will learn relevant management accounting carrier skill, applying both quantitative and qualitative knowledge to their future carrier in business. 4. Student will be able to demonstrate progressive learning of various tax issue various tax form s relating to individual student will able to demonstrate knowledge in setting up a computerized set of accountancy books. 5. Learners will gain through systematic and subject skill within various disciplines of commerce, business, accounting, economics, finance, auditing, banking and marketing. 6. Learners will be able to recognize future and role of business entrepreneurs, managers, consultants, which will be help learners to posses knowledge and other soft skill and to react aptly when conformed to critical decision making. 7. Learners will able to prove proficiency with the ability to engage in competitive exams like CA, ICWA, CS, and other courses. 8. Learners will acquire the skill like effective communication, decision making, problem solving in day to day business affairs. 9. Learners will involve in various co-curricular activities to demonstrate relevancy of fundamental and theoretical knowledge of their academic major and to gain practical. 10. Learners can also acquire practical skill of work as tax consultant, audit assistant and other financial supporting services. 11. Learners will be able to do higher education and advance research in the field of commerce and finance.

4	BUSINESS ECONOMICS	1. To understand business Economics —Meaning nature etc. basic concept in Business economics 2. To understand Various important issues in business Economics 3. To understand business concepts — values of money, theories of values of money etc. 4. To understand various issues in macro- economies. 5. Knowing about Indian Economy 6. Knowing about basic concept in world economic environment 7. To understand basic Banking concepts

5	BANKING	1. To acquaint the students with banking law and practice in relation to the banking system in India 2. To develop the capability of students for knowing banking system, regulatory framework banker- customer relationship and banking services. 3. To understand the legal aspects of banking transactions and its implications as banker and customer. 4. To develop the capability of students for knowing bank nationalization, financial and business performance of banks, central banking and financial markets. 5. To acquaint the students with banking law and practice in relation to the banking system in India 6. To develop the capability of students for knowing negotiable instruments loans and advances and electronic banking. 7. To understand the legal aspects of banking transactions and its implications as banker and customer 8. To acquaint the students with banks and financial institutions. 9. To develop the capability of students for knowing financial institutions, development banks non-banking financial intermediaries and international banking.
6	FINANCIAL ACCOUNTING	1. Knowledge of accounting cycle. 2. Knowledge of sophisticated financial accounting topics siich as business combinations, governmental accounting, partnership accounting, etc. 3. Knowledge of International Accounting Principles and the impact of global issues. 4. Ability to evaluate financial results. 5. Ability to prépare a federal individual tax return. 6.Knowledge of auditing principles and techniques. 6. 7.knowledge of CPA exam education requirements, parts of the exam and topics 7. included.
7	BUSINESS COMMUNICATION	1. Demonstrate critical and innovative thinking. 2. Display competence in oral, written, and visual communication. 3. Apply communication theories. 4. Show understanding opportunities in the field of communication. 5. Respond effectively to cultural communication differences. 6. Communicate ethically. 7. Demonstrate positive group communication exchanges.

8	MANAGEMENT IN BUSINESS SERVICES	1. Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management. 2. Describe the legal, social, ethical, and economic environments of business in a global content. 3. Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches. 4. Demonstrate professional communication and behavior. 5. Apply knowledge of business concepts and functions in an integrated manner.
9	MANAGEMENT ACCOUNTING	1. Critically analyze and provide recommendations to improve the operations of organizations through the application of management accounting techniques. 2. Demonstrate mastery of costing systems, cost management systems, budgeting systems and performance measurement systems. 3. Demonstrate the need for a balance between financial and non-financial information in decision making, control and performance evaluation applications of management accounting. 4. Evaluate the costs and benefits of different conventional and contemporary costing systems. 5. Learn independently and to demonstrate high level personal autonomy and accountability. 6. Learn within teams - to co-operate with team members, to assume leadership and 7. Mortgage differences and conflicts.
10	PRODUCTION MANAGEMENT	1. Exhibit good communication skills in the management of personnel and business relationships: 2. Establish procedures for overseeing a production budget; 3. Coordinate the crewing and casting of a production flow; 4. Manage a production schedule
11	BUSINESS ECONOMICS (MACRO)	5. Identify the role of supply and demand in a market economy. 6. Identify the necessary conditions for market economies to function well. 7. Discuss market system advantages and pricing. 8. Understanding of the economic role of government policy and the Federal Reserve 9. Define and analyze economic problems using algebraic and statistical methods. 10. Identify the benefits and costs of a global economy. 11. Identify the role of supply and demand in a market economy. 12. Identify policy options and their effectiveness. 13. Understanding importance of international relations to trade and finance.

12	ENTREPRENEURSHIP DEVELOPMENT	1. Understand the basic development of entrepreneurship as a profession. 2. Understand business models. 3. Write a business plan describing a new business venture. 4. Understand marketing strategies for small businesses. 5. Identify capital resources for new ventures and small businesses. 6. Monitor the performance of a new firm. 7. Have a basic knowledge of human resource management for small business. 8. Understand the social responsibilities of small business managers.
13	BUSINESS STATISTICS	After completion of this course, the student will be able to 1. Explain the scope of statistics in business, perform classification and tabulation, and represent the data by means of simple diagrams and graphs. 2. Explain and apply sampling techniques in real life. 3. Summarize data by means of measures of central tendency and dispersion. 4. Explain the merits and demerits of various measures of central tendency and dispersion. 5. Perform analysis of bivariate data using simple correlation and simple linear regression. 6. Compute unconditional and conditional probabilities and apply laws of probabilities. 7. Identify the applications of Binomial and normal distributions. 8. Measure trend and seasonal variations in time series data. 9. Compute and interpret simple and weighted index numbers. 10. Construct and apply variable and attribute control charts.
14	FINANCIAL MANAGEMENT	1. Demonstrate understanding of the finance function 2. Demonstrate understanding of the goals of the finance manager 3. Identify the basic financial environment and institutions 4. Perform analytical reviews of financial results, proposals, and plans 5. Identify funding sources, instruments, and markets 6. Demonstrate knowledge of the value of money over time and its uses 7. Demonstrate knowledge of a basic financial vocabulary

15	PRACTICE IN MODERN MANAGEMENT	1. Graduates will demonstrate the ability to communicate effectively both orally and in writing. 2. Graduates will demonstrate knowledge of the legal and ethical environment impacting business organizations and exhibit an understanding and appreciation of the ethical implications of decisions. 3. Graduates will demonstrate an understanding of and appreciation for the importance of the impact of globalization and diversity in modem organizations. 4. Graduates will demonstrate an ability to engage in critical thinking by analyzing situations and constructing and selecting viable solutions to solve problems. 5. Graduates will demonstrate an ability to work effectively with others.
16	RESEARCH METHODOLOGY	1. Students should understand a general definition of research design. 2. Students should know why educational research is undertaken, and the audiences that profit from research studies. 3. Students should be able to identify the overall process of designing a research study from its inception to its report.
17	RECENT TRENDS IN MARKETING	1. Information literacy skills in searching for information related to the theory and practice of management 2. Professional business writing 3. Interviewing skills--interviewing a practicing manager and presenting written and oral reports that integrate information literacy, analysis and synthesis of the manager's activities, critical thinking, and reflections.
18	FOUNDATION OF BUSINESS LAW AND TAX LAW	1. Demonstrate understanding of the basic American Legal System 2. Demonstrate knowledge of basic court procedures 3. Demonstrate understanding of the nature of tort law, including business torts 4. Demonstrate how criminal law relates to business 5. Demonstrate recognition of intellectual property Identify how computer law affects business Analyze the nature and terminology of contract law 6. Demonstrate recognition of the requirements of the contract agreement 7. Demonstrate understanding of contract consideration and capacity 8. Demonstrate recognition of the genuineness of assent in contract formation. 9. Demonstrate understanding of legality and Statute of Frauds in contracts

19	FOUNDATION OF HUMAN SKILL	1. Create a budget, and develop money management, and problem solving skills. 2. Describe employment skills, strengths, and deficits. 3. State educational goals. 4. Depict current contemporary issues regarding culture, ethnicity, health, sexuality, resiliency, coping, identity, self-esteem, and nutrition. 5. Locate and describe one community resource in the surrounding area. 6. Describe and visit one independent living setting.
20	INTERNATIONAL BUSINESS	1. Conduct an environmental scan to evaluate the impact pf world issues on an organization's international business opportunities. 2. Conduct, evaluate and present market research to support an organization's international business decision-making. 3. Manage the preparation of documents and the application of procedures to support the movement of products and services in the organization's global supply chain. 4. Evaluate the impact of statutory and regulatory compliance on an organization's integrative trade initiatives. 5. Develop and implement strategies to negotiate effectively within various cultural environments and to address the impact of cultural differences on on organization's integrative trade initiatives. 6. Develop and present an international marketing plan, and evaluate sales strategies that support an organization's integrative trade initiatives. 7. Identify and interpret relevant international financial documents, and evaluate financial strategies that support an organization's integrative trade initiatives. 8. Analyze the impact of an organization's integrative trade initiatives on its human resources management strategies, policies and practices.

PROGRAM SPECIFIC OUTCOMES-(B.Sc.)

SR. NO.	PROGRAM SPECIFIC NAME	PROGRAM SPECIFIC OUTCOMES
1	CHEMISRTY	1. To promote understanding of basic facts and concepts in chemistry while retaining the excitement of chemistry. 2. To make student capable of studying chemistry in academic and industrial course. 3. To expose the students to various emerging new areas of chemistry and apprise 4. them with their prevalent in their future studies and their application irl various spheres of chemical service. 5. To develop problem solving skill in students. 6. To expose students to different processes used in industries and their applications. 7. To develop ability and to acquire the knowledge of terms, facts, concepts, processes, techniques and principles of subjects. 8. To develop ability to apply the knowledge of contents of principles of chemistry. 9. To acquires new knowledge of chemistry and developments there in. 10. To expose and to develop interest in the field of chemistry. 11. To develop proper attitude towards the subject 12. To develop the power of appreciation, achievement in chemistry and the role in nature and society. 13. To develop skills required in chemistry such as proper handling of apparatus and chemicals. 14. To acquaint properly with recent instrumental techniques used in industry. 15. To build a personality of student as chemist.

2	PHYSICS	By the end of this course students are expected to be able: 1. Appearing for MPSC, U PSI, M. SC. M.C.A. CDS etc. entrance test 2. They can join in different industries like Mikron India, BSNL, MSEB TATA Power. 3. Indian Air force 4. Indian Navy 5. Indian Army 6. Medical Representative 7. As scientist in Indian Institute of Tropical Metrology 8. As Scientist in DRDO 9. In Different Research and development institutes 10. They can join as trainee in Kirloskar Oil and Thermax industries. 11. Technician in wind mills.
3	ZOOLOGY	1. To impart the knowledge of animal science to the pupils. 2. To make the pupils to use the knowledge in their daily life. 3. To make the pupils aware of natural resources and environment. 4. Application of knowledge in Zoology for nutrition, agriculture and live stock. 5. To provide practical experiences which form a part of their learning processes 6. To develop aptitude for scientific work & ability to pursue studies far beyond graduation. 7. To encourage the pupils to take life science as a carrier which is the need now a days 8. To make the pupils fit for the society.
4	STATISTICS	By the end of this course students are expected to be able: 1. To compute various measure of central tendencies, dispersion, moments, skeweness, and kurtosis and to interpret them. 2. To analyze data pertaining to attribute and interpret the results. 3. To distinguish between random and non random experiments. 4. To find the probabilities of various events. 5. To compute correlation, coefficient, interpret its value and use in regression analysis. 6. To understand concept of multivariate distributions. 7. To apply discrete probabilities distributions studied in this course in different situations. 8. To Distinguish between discrete variables and study their distributions 9. To know some standard discrete probability distributions with real life situations.

5	MATHEMATICS	1. Students became aware of concepts in algebra like complex analysis, Matrices etc. 2. They can use these concepts in various examinations 3. Students learn the use of differentiation and applications , Leibnitz's rule and its applications 4. Students team concepts of sphere, polar co-ordinates 5. Students know the concepts of order, Degree of differential equations, Solutions of 6. first order , first degree 7. Students learn the various concepts like Jacobian, Extreme values, Vectors etc. 8. Students became aware of solutions of differential equations of homogeneous D.E., Second order D.E., Total D. E. etc. 9. Students practice the concept of double and triple integration , Beta and gamma
6.	COMPUTER SCIENCE	After completing the B.Sc. (Computer Science) course the students would be able to: 1. Understand the multiple levels of detail and abstraction 2. Recognize the context in which a computer system make function, including its interaction with people and the physical world. 3. Communicate with, and learn from, expert from different domains throughout their careers. 4. Possess a solid foundation that allows and encourages them to maintain relevant skills as the field evolves. 5. To be able to manage their own career development and advancement, manage their own learning and development, including managing type, priorities, and progress. 6. Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems. 7. Ability to understand the structure and development methodologies of software systems 8. Possess professional skills and knowledge of software design process. familiarity and practical competence with a broad range of programming language and open source platforms.

Palus Shikshan Prasarak Mandal's

ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS

Name of Programme: **Bachelor of Business Administration (B. B. A.)**

The Programme Outcomes (PO) of the programme B. B. A. are as follows:

After completing the B. B. A. course the students would be able to:

1. Identify the different functional aspects of business world and recognize different opportunities of business.

2. Acquire the different skills necessary for the professional attitudes.

3. Demonstrate a global outlook with the ability to identify aspects of the global business and cross cultural understanding.

4. Identify the problems and challenges and inculcate the capability to cope with the spontaneous changes.

5. Analyze the importance of innovation and research, tackle the contemporary needs and accordingly grab the opportunities.

6. Develop effective and oral communication especially in business applications, with the use of appropriate technology.

Program Specific Outcomes (PSO) of the programme B. B. A. are as follows:

After completing the BBA course the students would be able to:

1. Acquire the managerial professional attributes and be capable of decision making by applying the knowledge of management discipline.

2. Explore the entrepreneurial quality and start new business venture with innovative ideas.

3. Prepare students to undertake post graduation management programme.

B.B.A Semester-I

Sr. No	Name of the Course	Course Outcomes
1	**Fundamentals of Business Management**	1.Students should be able to know, comprehend, apply, analyze, synthesize and evaluate the basic fundamentals of managing organizations. Students will complete specific activities, as identified in the syllabus, related to each of the four functions of management: planning, organizing, leading and controlling. 2. Have developed a working knowledge of fundamental terminology and frameworks in the four functions of management: Planning, Organizing, Leading and Controlling. 3. Be able to analyze organizational case situations in each of the functions of management; 4. Be able to identify and apply appropriate management techniques for managing contemporary organizations; and 5. Have an understanding of the skills, abilities, and tools needed to obtain a job on a management track in an organization of their choice
2	**Principles of Marketing**	1. Understand the fundamentals of marketing. 2. Aware of the 4P's & 4C's of marketing mix. 3. Understand the consumer behavior and importance of market segmentation
3	**Micro Economics**	1. Learners will be able to explain meaning and scope of business economics 2. Learners will apply the concept and theories of demand and consumer behaviors' 3. Learners will apply concepts of factor pricing and production function in business practices 4. Learners will understand different markets and its pricing practices
4	**Information Technology in Business**	1. Understand basics of computer technology. 2. Identify software and networking technology for business.

	Management	3. Prepare documents, files and folders with the help of Ms-Words
		4. Prepare power point presentations.
		5. Analyze Business data using MS – Office.
5	**Business Communication, Paper –I**	1. Understand business communication
		2. Develop vocabulary
		3. Develop effective writing skills
		4. Develop effective reading skills

B. B. A. - I   Semester-II

Sr. No.	Name of the Course	Course Outcomes
1	**Accounting for Managers**	1. Understand the concepts in accountancy.
		2. Prepare ledger accounts, subsidiary books and trial balance.
		3. Demonstrate calculations of depreciation.
		4. Prepare statements of accounts.
2	**Human Resource Management**	1 Describe human resource planning process
		2 Describe selection procedure in detail
		3 Describe the methods of management development
		4 Describe different methods of training
3	**Macro Economics**	1. Learners will be able to understand concepts of national income and demand of supply of money
		2. Learners will apply the principles and theories of inflation and business cycle
		3. Learners will understand different concepts of public finance
4	**Management Information System**	1. Understand basics Information System.
		2. Understand working and applications of different information systems.
		3. Study system development lifecycle.
		4. Analyze the system requirement
5	**Business Communication**	1. Understand the nature of effective oral communication
		2. Face the interview confidently and participate in the group discussion

Sr. No.	Name of the Course	Course Outcomes
		3. Develop presentation skills
		4. Understand different modern office communication tools

B. B. A. - II   Semester-III

Sr. No.	Name of the Course	Course Outcomes
1	**Fundamentals of Entrepreneurship**	1. Have a fair idea about aspects of entrepreneurship development 2. Understand the role of entrepreneurs, and the importance of entrepreneurship with the challenges and opportunities. 3. Get acquainted with different theories of entrepreneurship 4. Understand the concept and role of woman entrepreneurs 5. Understand the concept of rural and social entrepreneurship
2	**Cost Accountancy**	1. Describe concepts in Cost Accountancy 2. Analyze methods of Costing, Cost Levels and methods of pricing material issues, Inventory Control Techniques 3. Define application of Marginal Costing Technique in decision making 4. Discuss Cost Audit and Cost Control Technique.
3	**Services marketing**	1. Compare goods and services 2. Demonstrate 7 P's of service marketing 3. Application of 7 P's for various service organizations 4. Develop 7 P's of marketing for a service organization
4	**Forms of Business Organization**	1. Understand different forms of business organization. 2. Classify different sources of finance available & its influence on business decisions. 3. Illustrate different combinations of business. 4. Understand new trends in management
5	**Statistical techniques**	1. Define descriptive Statistical techniques 2. Describe applications of statistical techniques. 3. Apply suitable statistical formula and calculate result. 4. Conclude degree of relationship of two variables and estimate unknown variable.

B. B. A. - II   Semester-IV

Sr. No.	Name of the Course	Course Outcomes

1	**Entrepreneurship and Project Management**	1. Understand the process of project identification
		2. have a fair idea about different institutions and schemes
		3. Understand different methods of project appraisal
		4. Understand the process of preparation of business plan
2	**Management Accounting**	1. Understand Management Accounting and Reporting to management
		2. Understand tools and techniques of Management Accounting
		3. Understand Financial Statement Analysis
3	**rural and retail marketing**	1. Develop understanding of concepts of rural and retail marketing.
		2. Understand the current situation of rural marketing.
		3. Analyze the marketing of agricultural inputs and products
		4. Understand retail formats, retail buying behavior and retail marketing mix
4	**Research Methodology**	1. Define various terms used in research process
		2. Describe research design, sample design and sampling methods
		3. Apply appropriate methods for data collection for research work
		4. Use appropriate statistical tools for data analysis and interpretation
5	**Statistics for decision making**	1. Define tools Statistics used for decision making
		2. Describe applications of statistics for decision making.
		3. Apply suitable statistical formula and estimate trend.
		4. Construct control charts

B. B. A. - III Semester-V

Sr. No.	Name of the Course	Course Outcomes
1	**Fundamentals of Business laws (compl.)**	After Completion of the course students will be able to:
		1. Have a fair idea about aspects of different business laws inIndia

		2. Understand the salient features and importance of differentbusiness laws. Get acquainted with different provisions of business laws.
2	**Human Skills (compl.)**	3. After Completion of the course students will be able to: 1. Develop different human skills among students 2. Enhance quality behavior. 3. To increase Emotional Quotient by learning values. 4. Understand about conflict management and stressmanagement 5. Beneficial to cultivate professional skills among the management students and make them persons with empathy. 6. Understand about Career Management and career opportunities in Management
3	**Management Historians (compl.)**	On Completion of this course students will be able to: 1. Understand evolutionary phases of management approaches 2. Understand contribution of management historians 3. Evaluate role of historian in developing science ofmanagement
4	**Digital Marketing (Opt.)**	At the end of the course the student should be able to: 1. Learn the applications of Digital Marketing 2. Analyze the different digital marketing avenues. 3. Examine digital marketing tools. Build real life problems in the domain of digital marketing
5	**Financial Management (Opt.)**	4. After Completion of the course students will be able to: 1. To understand the basic concepts Financial Management 2. To know about components of Working CapitalManagement 3. To understand Capital Structure ,Cost of Capital andLeverage

6	**Human Resource Planning (opt.)**	After completion of the course students will be able to : 1. Understand the various functions of HRM. 2. Describe the Human Resource Planning Process. 3. Understand the Recruitment function in detail. 4. Describe the Selection process 5. Analyze the employee separation method.
	B. B. A. - III Semester-VI	
Sr. No.	**Name of the Course**	**Course Outcome**
1	**Fundamentals of Taxation (Compl.)**	After Completion of the course students will be able to: 1. To understand the basic concepts in Taxation 2. To demonstrate the computation of income and tax liability 3. To understand concept of GST and its mechanism
2	**Business Ethics (Compl.)**	After Completion of the course students will be able to: 1. Apply those skills to the real and current challenges ofBusiness and professions. 2. Differentiate between ethical and unethical behavior ofManagers, employers and employees. 3. Adopt ethical practices in their field of work and life
3.	**Organizational Behaviour (Compl.)**	After Completion of the course students will be able to: 1. Understand the basic concepts of OB 2. Understand the principles of learning 3. Describe the importance of attitude and values 4. Implement the theories of Motivation and Personality. 5. Understand and implement causes of stress and copingstrategies
4.	**International Marketing (opt.)**	After Completion of the course students will be able to:1 .Understand basics of international marketing. 2. To provide students with a perspective of

		International Marketing management, its environment and complexities. 3. Study international marketing strategies. 4. Study functions of international trade.
5.	**Business Finance (Opt.)**	After Completion of the course students will be able to: 1. To understand the basic concepts Business Finance 2. To recognize Financial Markets , Mutual Funds, PortfolioManagement and Micro Finance To understand Corporate Restructuring and its ways.
6.	**Human Resource Development (Opt.)**	After Completion of the course students will be able to: 1. Understand the difference between HRM & HRD Concepts. 2. Understand the various subsystems involved in HumanResource development. 3. Describe and differentiate Training & developmentfunction. 4. Understand the methods of performance appraisal Analyze the career development techniques

Palus Shikshan Prasarak Mandal's

ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS.

Name of the programme**:- BCA(Bachelor of Computer Application)**

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The Programme Outcomes (PO's) of the programme B.C.A are as follows:-

After completion of program Students / graduates will be able to:

PO1: Apply knowledge of ICT in solving business problems.

PO2: Learn various programming languages and custom software.

PO3: Design component, or processes to meet the needs within realistic constraints.

PO4: Identify, formulate, and solve problems using computational temperaments.

PO5: Comprehend professional and ethical responsibility in computing profession.

PO6: Express effective communication skills.

PO7: Recognize the need for interdisciplinary, and an ability to engage in life-long learning.

PO8: **PO9:** Utilize the techniques, skills and modern tools, for actual development process.

Programme Specific Outcomes (PSO) of the programme B.C.A are as follows:- After Completing the BCA Course the students would be able to:

1. Acquire the techniques, skills and modern tools, for actual development Process.

2. Prepare Students to undertake post graduation computer programme.

3. Explore Knowledge of contemporary issues and emerging developments in computing profession.

BCA-I Semester-I		
Sr.No	**Name of the course**	**Course Outcome**
1	**Course Code:** **CC 101** **Fundamentals of Computer**	Course Outcomes After completion of these course students will be able to - 1. Understand basic concepts of computer. 2. Describe peripheral devices and number systems. 3. Understand operating environment 4. Demonstrate the use of Linux Operating system commands
2	**Course Code:** **CC 102** **Introduction to Programming using 'C**	Course Outcomes after Completion of this course the student will be able to - 1. Able to implement the algorithms and draw flowcharts for solving Mathematical problem. 2. Ability to design and develop Computer programs, analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage. 3. Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures and file Handling. 4. Develop confidence for self education and ability for life-long learning needed for computer language.
3	**Course Code:** **ACE 103** **Principles of Management**	Course Outcomes After completion of these course students will be able to - 1. Understand the influence of historical forces on current practice of management. 2. Understand frameworks in the four functions of management. 3. Understand leadership styles to anticipate the consequences of each leadership style 4. Be able to identify and apply appropriate management techniques for organizations; and 5. Understand social responsibility involved in business situations
4	**Course Code:** **ACE 104** **Business Communication**	Course Outcomes After completion of this course students will be able to - 1. Communicate in English in written as well as oral

		mode 2. Make presentations in English 3. Do effective business correspondence
5	**Course Code:** **AEC 105** **Office Automation**	Course Outcomes After completion of this course students will be able to - 1) Understand the components of office automation 2) Perform operations using MS Word and PowerPoint 3) Surf details through Internet 4) Understand and discuss about the use of Office Package and internet in daily life
<td colspan="2" align="center">**BCA-I Semester-II**</td>		
1	**Course Code:** **CC201** **Database Management System**	Course Outcomes After completion of this course students will be able to - 1) Describe the basic concepts of DBMS and various databases used in real applications 2) Demonstrate the principles behind systematic database design approaches. 3) Design the database structure by applying the concepts of Entity- relational model and Normalization. 4) Learn MS-Access for database creation and handling transactions
2	**Course Code:** **CC202** **Operating System**	Course Outcomes After completion of this course students will be able to - 1) Describe the basic concepts of DBMS and various databases used in real applications 2) Demonstrate the principles behind systematic database design approaches. 3) Design the database structure by applying the concepts of Entity- relational model and Normalization. 4) Learn MS-Access for database creation and handling

		transactions
3	**Course Code:** **CC 203** **Object Oriented** **Programming** **Using C++**	Course Outcomes After completion of this course students will able to - 1) Understand object-oriented programming and advanced C++ concept. 2) Apply the concepts of object, classes and constructor. 3) Design C++ Programs based on object, class, inheritance, abstraction, encapsulation, dynamic binding and polymorphism. 4) Implement concept of polymorphism in program.
4	**Course Code:** **AEC 204** **Financial Accounting with** **Tally**	Course Outcomes After completion of this course students will able to – 1. Use basic accounting terminology, procedures and systems of maintaining accounting records. 2. Understand financial statements 3. Learn to create company, enter accounting voucher entries and also print financial statements, etc. in Tally. 4. Demonstrate MIS reports in Tally ERP.
5	**Course Code:** **AEC 205** **Mathematical Foundations** **For** **Computer Applications**	Course Outcomes After completing this course, students should demonstrate competency in the following skills: 1) Basic knowledge of set theory, functions and relations concepts, matrix needed for designing and solving problems. 2) Construct simple mathematical proofs and possess the ability to verify them. 3) Write an argument using logical notation and determine if the argument is valid or is not valid. 4) Use graph algorithms to solve problems.

BCA-II Semester-III		
Sr.No	**Name of the course**	**Course Outcome**
1	**Course code:** **CC 301** **Web Technology**	Course Outcomes After completion of this course student should be able to- 1. Understand basics of website and web development life cycle. 2. Design website using HTML and CSS 3. Implement client side scripting for website development 4. Understand importance and working of HTML5
2	**Course code:** **CC 302** **Computer Network and Internet**	Course Outcomes After completion of this course student should be able to- 1. Understand the concept of computer network. 2. Identify different components required to build different networks. 3. Recognize the functions of network layers and different protocols. 4. Discuss the important features of the Internet and Web
3	**Course code:** **CC 303** **Data Structure using C**	Course Outcomes After completion of this course student should be able to- 1. Use and implement appropriate data structure for the required problems using a programming language such as C. 2. Understand various searching & sorting techniques 3. Implementing various data structures viz. Stacks, Queues 4. Implementation of Linked Lists and Trees
4	**Course code:** **AEC304** **Elements of Statistics**	Course Outcomes After completion of this course student should be able to- 1) Explain various term used in Statistics. 2) Describe the Measures of Central Tendency and Dispersion 3) Understand Analysis of Bivariate data(Correlation and Regression) 4) Elaborate Sampling Techniques and Time Series Analysis.

5	**Course code: AEC305 Human Resource Management and Materials Management**	Course Outcomes After completion of this course student should be able to- 1. Understand Human Resource Planning Process. 2. Elaborate Performance Appraisal, Training and Development, Wage and salary Administration. 3. Explain functions of material management 4. Demonstrate 5 R in purchasing and Inventory control techniques.
	BCA-II Semester-IV	
1	**Course Code: CC 401 RDBMS**	Course Outcomes After completion of this course student should be able to- 1. Describe the fundamental elements of Relational Database Management Systems. 2. Explain various commands in data languages with example. 3. Understand various subqueries & joins. 4. Apply the control statements and stored procedures.
2	**Course code: CC 402 Software Engineering**	Course Outcomes After completion of this course student should be able to- 1. Understand life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software. 2. Develop SRS document. 3. Use of analysis and design tools for system development. 4. Apply software engineering concepts in software development to develop quality software
3	**Course code: CC 403 DOT NET Technology**	Course Outcomes After completion of this course student should be able to- 1. Understand features of C# DOT NET 2. Implement various server controls for website development 3. Apply validation and state management for interactive website development 4. Design and develop dynamic web application

		using ADO.Net
4	**Course code: AEC 404 Entrepreneurship Development**	Course Outcomes After completion of this course student should be able to- 1. Define characteristics, function and types of entrepreneurs and know the role of Entrepreneurship in Economic Development. 2. Identify Business Opportunities and prepare business plan. 3. Know project finance agencies. 4. Understand New Opportunities and Challenges in digital entrepreneurship
5	**Course Code: CCL405 PHP**	Course Outcomes After completion of this course student should be able to- 1. Understand the environment of PHP programming Language. 2. Develop web applications using PHP.

BCA-III Semester-V		
Sr.No	**Name of the course**	**Course Outcome**
1	**Paper No. 501: Management Accounting**	1. Critically analyse and provide recommendations to improve the operations of organisations through the application of management accounting techniques. 2. Demonstrate mastery of costing systems, cost management systems, budgeting systems and performance measurement systems. 3. Demonstrate the need for a balance between financial and non-financial information in decision making, control and performance evaluation applications of management accounting. 4. Evaluate the costs and benefits of different conventional and contemporary costing systems.
2	**Paper No. 502: E-Commerce**	1. Analyze the impact of E-commerce on business models and strategy

		2. Describe Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational. 3. Describe the infrastructure for E-commerce 4. Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other. 5. Discuss legal issues and privacy in E-Commerce 6. Assess electronic payment systems 7. Recognize and discuss global E-commerce issues
3	**Paper- 503 Computer Network**	1. To understand the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks. 2. To design a network routing for IP networks. 3. To identify main internal PC components and connections. 4. To explain how a collision occurs and how to solve it. 5. To demonstrate proper placement of different layers of ISO model and illuminate its function. 6. To learn Internet structure and can see how standard problems are solved in that context. 7. To determine proper usage of the IP address, subnet mask and default gateway in a routed network. 8. To understand internals of main protocols such as HTTP, FTP, SMTP, TCP, UDP, IP 9. To analyze simple protocols and can independently study literature concerning computer networks.
4	**Paper No. 504: RDBMS with Oracle**	1. Understand, appreciate and effectively explain the underlying concepts of database technologies 2. Design and implement a database schema for a given problem-domain 3. Normalize a database 4. Populate and query a database using SQL

		DML/DDL commands.
		5.Declare and enforce integrity constraints on a database using a state-of-the-artRDBMS
		6.Programming PL/SQL including stored procedures, stored functions, cursors,packages.
		7.Design and build a GUI application using a 4GL
5	**Paper No- 505 Visual Programming**	1.Design, document, code and test small C# console and GUI applications. 2.Design, document, code and unit test class libraries as part of a larger project. 3.Use an object browser and .NET documentation to examine C# and the .NET framework namespace contents. 4.Use the Visual Studio IDE to create and debug application and class library solutions and projects. 5.Interpret UML class diagrams to create C# classes and applications
BCA-III Semester-VI		
1	**Paper No.601 Strategic Management**	1. know, understand, and apply the strategic management process to analyze and improve organizational performance. 2.The complementary learning outcomes are to be able to conduct and draw conclusions from external analyzes of an organization's environment. 3.To able to conduct and draw conclusions from internal analyzes of an organization's capabilities, formulate realistic strategies. 4.Develop implementation plans to execute those strategies.
2	**Paper No. 602 Data Mining and Data Warehousing**	1. Identify the scope and necessity of Data Mining & Warehousing for the society. 2.Describe the designing of Data Warehousing so that it can be able to solve the root problems. 3. To understand various tools of Data Mining and

		their techniques to solve the real time problems. 4. To develop ability to design various algorithms based on data mining tools. 5. To develop further interest in research and design of new Data Mining techniques.
3	**Paper No - 603: Linux Operating System**	1.Basic Networking Concepts 2.Installation and basic handling of Linux System 3.Basic Configuration of various server like Web Server, DNS Server, Mail Server and Cache Server 4.Configuring and troubleshooting Host and Network Security in Linux System 5.Installing, configuring Bandwidth Management tool
4	**Paper No-604: Java Programming**	1. Create Java programs that solve simple business problems. 2.Validate user input. 3.Construct a Java class based on a UML class diagram. 4.Perform a test plan to validate a Java program. 5.Document a Java program.

Palus Shikshan Prasarak Mandal's

ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS

Name of Programme: **Bachelor of Computer Science Entire**

The <u>Programme Outcomes</u> (PO) of the programme B.C.S. are as follows:

After completing the B.C.S. Course the students would be able to:

1. Understand the multiple levels of detail and abstraction

2. Recognize the context in which a computer system make function, including its interaction with people and the physical world.

3. Express effective communication skills.

4. Utilize the techniques, skills and modern tools, for actual development process.

5. Able to communicate with, and learn from, expert from different domains throughout their careers.

<u>Program Specific Outcomes</u> (PSO) of the programme B.C.S Are as follows:

After completing the B.C.S course the students would be able to:

1. Ability to understand the structure and development methodologies of software

Systems.

2. Possess professional skills and knowledge of software design process. Familiarity and

Practical competence with a broad range of programming language and open source

Platforms.

3. Explore Knowledge of contemporary issues and emerging developments in computing profession

B.C.S- I Semester-I

Sr.No	Course Name	Course Outcomes
1	**Discrete Mathematics.-I**	1. Simplify & evaluate basic logic statement including compoud , implicatrion , inerse &converse statement 2. Understand the notation of mathematical thinging & proof. 3. Write an argument using logical notation & detaremine valid or not valid argument 4. To apprecitae the basic principles of boolean algebra
2	**Electronics Devices and Circuits - I**	1. Apply the concept of basic electronic device 2. Student should know basic electronic devices
3	**Introdcution to computer and data Processing - I**	1.Students will learn to use and configure essential office applications including word processing, spreadsheets. 2.Students will learn essential operating systems skills including how to use, setup, configure, troubleshoot and maintain a current microcomputer operating system. 3.Students will develop a basic understanding of technologies and protocols used on the Internet, and how to effectively use Internet tools technologies including current web-based applications, e-mail, and social networking tools; developing searching strategies; and basic web authoring
4	**Algebra**	1.Students will develop and apply concepts of expressions, equations and inequalities to investigate and describe relationships and solve problems. 2.Understand the use of parameters and variables, including appropriate replacement sets. [Identify which symbols represent parameters and which represent variables. Represent situations with polynomials or equations. —-]

P.O., P. S. O. and C. O		Show procedural fluency with polynomial expressions, including basic factoring. [Perform flexibly operations of adding, subtracting, and multiplying on polynomials. Perform limited division. Understand and perform limited factoring, such as common factors and difference of squares.] 3.Use equations, inequalities, and systems of equations & inequalities to represent situations, and find solutions via symbolic, numeric and graphic methods. [Solve linear equations and inequalities flexibly by multiple methods. 4.Use systems of equations in two or three variables, and solve by multiple methods.]
5	**Digital Electronics-II**	1.The basic concept of logical gates & digital circuit 2. Student should maintain electronic & digital & analog device & circuit 3. Knowledge of fundamental digital design & systematic method of analysis & design digital electornics
6	**Introduction to Programming Using "C" - I**	1. Identify the parts of the computer system. 2. Adequately explain functioning of computer components. 3. Explain the process of problem solving using computer 4. Design an algorithmic solution for a given problem 5. Write a maintainable C program for a given algorithm. 6. Trace the given C program manually. 7. Write C program for simple applications of real life using structures and files. 8. Explain role of Operating system in computer system and applications of computer networks.
	Descriptive Statistics - I	1.Recognize and apply the most appropriate probability techniques in particular circumstances. 2.Understand, interpret, and communicate statistical reasoning from data using basic statistical terms, descriptive statistics, charts and graphs when

7		appropriate.
		3.Recognize and evaluate the relationship between two quantitative variables through simple linear
		4.regression and correlation and be able to explain why correlation does not imply causation.
		5.Understand, analyze and interpret relationships in two-way tables using chi-square tests.
8	**Probability and Discrete Probability Distributions**	1.Students should develop an appreciation of the need for data to make good decisions and an understanding of the dangers inherent in basing decisions on anecdotal evidence rather than on data. 2.Construct and interpret graphical displays of distributions of univariate data.

B.C.S- I Semester-II

| 1 | **Introduction to Computer and Data Processing- II** | . Identify the parts of the computer system. 2. Adequately explain functioning of computer components. 3. Explain the process of problem solving using computer 4. Design an algorithmic solution for a given problem 5. Write a maintainable C program for a given algorithm. 6. Trace the given C program manually. 7. Write C program for simple applications of real life using structures and files. 8. Explain role of Operating system in computer system and applications of computer networks. |
| 2 | **Introduction to Programming Using C - II** | Identify the parts of the computer system. 2. Adequately explain functioning of computer components. 3. Explain the process of problem solving using computer 4. Design an algorithmic solution for a given problem |

		5. Write a maintainable C program for a given algorithm. 6. Trace the given C program manually. 7. Write C program for simple applications of real life using structures and files. 8. Explain role of Operating system in computer system and applications of computer networks.
3	**Graph Theory**	1. Br familier with the defination & basic theory of grapg 2.To study different type of graph 3. To draw different types of graph 4. To use graph find the matices & equation
4	**Calculus**	1. Interpret a function form an algebric functoin 2. To provide basic knowledge of differinal calculas
5	**Electronics Devices and Circuits-II**	1.Maintain digital and analog devices and circuits. 2.Analyze components associated with digital and analog electronic systems. 3.Demonstrate proficiency in the use of electronic equipment and devices. 4.Assist in the design, operation, and troubleshooting of electronic systems.
6	**Digital Electronics -II**	The student will be able to: 1. Tell the history and development of digital electronics. 2. Describe and demonstrate the use digital test equipment and its operating characteristics. 3. Examine purpose of 555 timer and digital integrated circuits. 4. Identify and describe the six basic logic gates and combinational circuits in digital electronics. 5. Recognize the number systems use in digital logic design and its conversion 6. Identify and describe flip-flop circuits.
7	**Descriptive Statistics-II**	Recognize and apply the most appropriate probability techniques in particular circumstances.

		Understand, interpret, and communicate statistical 1.reasoning from data using basic statistical terms, descriptive statistics, charts and graphs when appropriate. 2.Recognize and evaluate the relationship between two quantitative variables through simple linear regression and correlation and be able to explain why correlation does not imply causation. 3.Understand, analyze and interpret relationships in two-way tables using chi-square tests.
8	**Continuous Probability Distributions and Testing of Hypothesis**	1.Students should develop an appreciation of the need for data to make good decisions and an understanding of the dangers inherent in basing decisions on anecdotal evidence rather than on data. 2.Construct and interpret graphical displays of distributions of univariate data.

B.C.S- II Semester-III

1	**Numerical Methods**	1.Analysis & evaluate the accuracy of common numerical values 2. Establishing the limitations ,advantages & disadvantages of the numerical method 3.To find approximate accurate value of given problem
2	**Computer Organization**	1. To understant input / output mechanism 2. Understand the various part of a system 3. To interface digital circuit to microprecessor
3	**Linear Algebra**	1.Solve system of linear equation using multiple methods 2. Carry out matric operation including inverse & determineant 3. Define the basic terms & concept of matrices & vectors

4	**Computer Instrumentation I**	1. Apply concept of Automatic control,including measurement 2. Design & implement system utilizing nalog or digital control device 3. Visualization in process control system.
5	**Environment**	1.To understand what is mean by actual envirnoment . 2.To devlop project with respect to envirnonmentstudy
6	**Course Code: DSC-301: Computer Science Paper-V Course Title: Relational Database Management System**	1. Improving skill about data operation. 2. Ability to handle database. 3. Ability to design& develop proper database. 4. SQL/MY-SQL helps to get knowledge about data operations
7	**Course Code: DSC-302: Computer Science Paper-VI Course Title: Object Oriented Programming using C++**	The student should - Understand basic concepts of object oriented programming.¬ Able to use various control structures to improve programming logic.¬ Design classes and objects.¬ Able to use constructor and destructor.¬ Utilize the OOP techniques like operator overloading, inheritance, and polymorphism
8	**Course Code: DSC-401: Computer Science Paper-VII Course Title: Data structure using C++**	At the end of this course, student should be able understand the most basic aspects of data¬ structures including Stacks, Queue, Linked list and Tree. Should able to understand different sorting and searching algorithms.¬ Should able to understand implementations of linked list, stack and queue¬
9	**Course Code: SEC-I :Skill Enhancement Course - I Course Title: Python Programming**	1. To understand why Python is a useful scripting language for developers. 2. To learn how to install Python, start the Python shell 3. To define the structure and components of a Python program. 4. To learn to perform basic calculations, print text on the screen and perform simple control flow operations using if statements and for loops 5. To learn how to use lists, tuples,

		and dictionaries in Python programs 6. To learn how to reuse code with functions
	B.C.S- II Semester-IV	
1	**Course Code: SEC-II :Skill Enhancement Course - II Course Title: HTML (Web Technology)**	Students who complete this course should be able to: 1. Understand basic concept of HTML. 2. Learn how to use HTML tags. 3. Understand relationship of HTML and CSS.
2	**Course Title: Cyber Security Essentials**	Students who complete this course should be able to: 1. Understand importance of cyber security and security management. 2. Learn different security threats. 3. Understand cyber security laws and importance of security audit. 4. Learn concept of wireless network security.
3	**Computational Geometry**	.To develop own algotithem for solving geometry problem 2.Us e line point duality to develop efficient algotithm 3. Apply geometry technique to real world problem
4	**Operation Research**	1.Develop a report that describe the model 2. Mathematical optimization technique 3. Write computer program to implement algorith & solve problem
5	**Microcontroller**	1.The general construction of microcomputer system 2. To desgin , build & test digital electronic circuit & microcontroler system. 3. Develop software for microcontroller system susing high level prograaming language
6	**Computer Instrumentation II**	1.Able to develop , understanding of contrction & working of different measuring instrument. 2. To design a variety of electronic & computer based device .

		3.Write simple computer programme for digital data acquistion & process control
7	**Env.Science**	To understand what is mean by actual envirnoment .To devlop project with respect to envirnonmentstudy

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B.C.S- III Semester-V

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1	**Course Code:DSE-501: Computer Science Paper- IX** **Core Java**	After completion of this course student will be able to 1.Implement Object oriented concepts using java 2.Develop Object oriented software application 3.Develop multithreading applications 4.Handle exceptions while executing programs
2	**Course Code:DSE-502: Computer Science Paper-X C#programming**	: After completion of this course student will be able to 1.Understand working of .Net Framework 2.Demonstrate concept of object oriented programming using C# 3.Study importance and applications of exception handling 4.Understand working of file handling in C#.
3	**Course Code:DSE-503: Computer Science Paper- XI Course Title: Software Engineering**	After completion of this course student will be able to 1.Understand the problem domain to choose process models correctly. 2Choose software projects using appropriate design notations. 3.Measure the product and process performance using various metrics. 4.Evaluate the system with various testing techniques and strategies 5Able to analyze, design, verify, validate, implement, and maintain software systems.
4	**Course Code:DSE-**	After completion of this course student will be able to

	504: Computer Science Paper-XII Course Title: Machine Learning Part- I	1.Develop an appreciation for what is involved in learning models from data. 2.Understand a wide variety of learning algorithms. 3.Understand how to evaluate models generated from data.
5	**Course Code:DSE-505: Computer Science Paper-XII Course Title: Data Communication**	After completion of this course student will be able to 1.Identify key considerations in selecting various transmission media in networks. 2.Familiar with switching and routing techniques in networking. 3.Understand different data communication modes. 4.Understand OSI model and networking protocols.
6	**Course Code:AECC-E English Paper-III English for communication-III**	After completion of this course student will be able to 1.Identify key considerations in selecting various transmission media in networks. 2Familiar with switching and routing techniques in networking. 3.Understand different data communication modes. Understand OSI model and networking protocols
6	**Course Code:DSE-601 computer science paper-XIII Advanced Java**	completion of this course student will be able to 1.Develop GUI using Java 2.Handle Database connectivity using java 3.Develop dynamic web pages using servlet and JSP 4.Develop client-server application
	B.C.S- III Semester-VI	
1	**Course Code: DSE-602**	After completion of this course student will be able to 1.Understand working of Asp.Net web application

	Computer Science Paper- XIV ASP.NET	2.Demonstrate Asp.Net server controls. 3.Study database operations using ADO.Net. 4.Understand importance and working of state management
2	**Course Code:DSE-603 Computer Science Paper- XV Software Project Management**	After completion of this course student will be able to 1.Implement the basics of Project Management. 2.Choose correct Scheduling Techniques as per the software. 3.Develop Team Development skills and reduce conflicts. 4.Implement various Software Quality Standards. 5.Using CASE tools, Software Re-Engineering for creating efficient softwares.
3	**Course Code:DSE-604 Computer Science Paper- XVI Machine Lreaning Part-II**	After completion of this course student will be able to 1.Understand complexity of Machine Learning algorithms and their limitations; 2.Understand modern notions in data analysis oriented computing; 3.Apply common Machine Learning algorithms in practice and implementing their own; 4.Perform distributed computations;.
4	**Course Code:DSE-605 Computer Science Paper- XV Computer Networks**	After completion of this course student will be able to 1.Familiar with network basics concepts like protocols, topology etc 2.Familiar with OSI layered model services 3.Understand with switching and routing concepts in networking technologies. 4.Familiar with network security concepts
5	**Course Code: AECC-F English Paper-IV**	After completion of this course student will be able to 1.Comprehend the employment skills to have an effective

	English for Communication- IV	first impression 2.Construct effective technical reports and prepare effective presentations 3.Use various interpersonal skills as per the need of situation and context
6	**Course Code: SEC-II PHP Part- II**	After completion of this course student will be able to 1.Create and call functions using PHP 2.Create functions that take arguments and return values 3.How error is handled using exception handling 4.Display and handle HTML forms within a single PHP script

Palus Shikshan Prasarak Mandal's

ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS

Name of Programme: **Post Graduate Diploma in Computer Application.**

Programme Outcomes (PO) of the programme P.G.D.C.A. are as follows:

After completing the P.G.D.C.A. course the students would be able to:

1) The main objective of the course is to impart adequate professional knowledge and computer skills so as to enable the candidates to take up careers in the field of Information Technology.

2) To equip with latest knowledge, skills pertaining to the tasks and responsibilities of Information Technology.

Program Specific Outcomes (PSO) of the programme P.G.D.C.A. are as follows:

After completing the PGDCA course the students would be able to:

1. Acquire the computer programming skills to take up careers in the field of Information Technology.

2. Prepare students to enhance skills pertaining to the tasks and responsibilities.

P.G.D.C.A. Semester-I

Sr. No	Name of the Course	Course Outcomes
1	**Fundamentals of Computers**	After Completion of the course students will be able to: 1. Students should be able to know, basic fundamental concepts of computers. 2. Have an understanding of the skills, abilities, and tools of computers.
2	**E-Commerce and HTML**	After Completion of the course students will be able to: 1. Understand the fundamentals of Electronic Commerce. 2. Understand Ecommerce Business.
3	**Visual Programming Part-I**	After Completion of the course students will be able to: 1. Learners will be able to learn concepts of visual programming. 2. Learners will be able to design and develop applications using .net.

4	**Programming using 'C'**	After Completion of the course students will be able to:
		1. Understand basics of C language.
		2. Understand how to make programs using C language.
5	**RDBMS with Oracle Part- I**	After Completion of the course students will be able to:
		1. Understand RDBMS Terminologies.
		2. Understands how to write queries in database.

P.G.D.C.A. Semester-II

Sr. No.	Name of the Course	Course Outcomes
1	**Office Automation Tools**	After Completion of the course students will be able to:
		1. Understand all office automation tools.
		2. Understand how to work in word, excel and PowerPoint tools.
2	**Web Designing with PHP and MySQL**	After Completion of the course students will be able to:
		1. Understand how to design web applications using PHP.
		2. Understand how to work with MYSQL.
3	**Visual Programming Part-II**	After Completion of the course students will be able to:
		1. Learners will be able to understand concept of VB.net.
		2. Learners will apply the Concepts of VB.net practical approach.

4	**Advanced Programming using 'C'**	After Completion of the course students will be able to:
		1. Understand advanced concepts of C Language.
		2. Implementation of C language Concepts in Programming.
5	**RDBMS with Oracle Part-II**	After Completion of the course students will be able to:
		1. Understand the advanced concepts of RDBMS.
		2. Implementation of RDBMS advanced concepts in database.
6	**Practical**	After Completion of the course students will be able to:
		1. Implementation of practical knowledge of academic programming subjects.
		2. Enhance Practical Knowledge.
7	**Project Work**	After Completion of the course students will be able to:
		1. To design and develop an academic project report.
		2. To experience project work regarding any organization.

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Palus Shikshan Prasarak Mandal's

ARTS, COMMERCE AND SCIENCE COLLEGE, PALUS

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Name of Programme: **Master Of Computer Science(M.Sc(cs))**

The **Programme Outcomes** **(PO) of the programme M.Sc(cs) are as**

follows: After completing the M.Sc course the students would be able to:

At the end of the Master of Science (Computer Science) Programme, graduating

Students/graduates will be able to:

1. Communicate computer science concepts, designs, and solutions effectively and

 Professionally

2. Apply knowledge of computing to produce effective designs and solutions for specific

Problems

3. Identify, analyse, and synthesize scholarly literature relating to the field of computer

science Use software development tools, software systems, and modern computing

platforms.

4. Prepare for academic roles through NET/SET/PhD

5. Apply design and development principles in the construction of software systems of varying

complexity.

Program Specific Outcomes **(PSO) of the programme M.Sc (cs) is as follows:**

1. Demonstrate understanding of the principles and working of the hardware and

Software aspects of computer systems.

2. Ability to understand the structure and development methodologies of software

Systems.

3. Possess professional skills and knowledge of software design process. Familiarity and

Practical competence with a broad range of programming language and open source

Platforms.

4. Be acquainted with the contemporary issues, latest trends in technological development and

thereby innovate new ideas and solutions to existing problems

M.Sc-I Semester-I

Sr. No	Name of the Course	Course Outcomes
1	**CC-101: Design and Analysis of Algorithms**	After Completion of the course students will be able to: 1. Analyse the asymptotic performance of algorithms. 2. Demonstrate a familiarity with data structures and algorithms. 3. Compare algorithms based on time & space complexity. 4. Employ graphs to model real life problems, when appropriate. Develop algorithms that employ graph computations as key components, and analyse them. 5. Mapping of data structures like Stack, Queue and Linked List to real life problems. 6. Master the implementation of linked data structures such as linked lists and binary trees. 7. Be familiar with advanced data structures such as balanced search trees, hash tables, Red-Black trees, Btrees. 8. Understand Divide & Conquer approach, Greedy algorithm, Backtracking approach for algorithm design. 9. Be familiar with Branch and Bound&Dynamic programming
2	**CC-102: Python Programming**	After Completion of the course students will be able to: 1. Understand principles of Python 2. Understand object oriented programming 3. Demonstrate file handling techniques 4. Understand how Python can be used for application development 5. Design Real life problems and think creatively about solution of them 6. Apply a solution clearly and accurately in a program using python

3	**CC-103: Database Management System**	After Completion of the course students will be able to:
		1.Define the terminology, features, classifications, and characteristics embodied in database systems.
		2.Demonstrate an understanding of the relational data model.
		3. Transform an information model into a relational database schema and to use a data definition language and/or utilities to implement the schema using a DBMS.
		4.Formulate, using SQL, solutions to a broad range of query and data update problems.
		5.Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.
		6.Use an SQL interface of a multi-user relational DBMS package to create, secure, populate, maintain, and query a database.
		7.Use PL/SQL for handing data in a database as per the user's requirement using programming features.
		8.Define various cursors and its implementation along with procedure and functions.
4	**OE-104: Cyber Security**	1. Realize the need for Cyber Security
		2. Understand the need for Security in day to day communications
		3. Understand the vulnerabilities in the Network and Computer System
		4. Understand the cyber law and Cyber Forensics

M.Sc-I Semester-II

Sr. No	Name of the Course	Course Outcomes

1	**CC-201: Web Technology**	After Completion of this course the student would be able to; 1.To familiarize a student with windows and web-based application 2.To provide a student with the solid foundation of the syntax and semantics of C# as well as architecture of the .NET framework 3.Debug and deploy ASP.NET web applications 4.Discuss the insights of internet programming and implement complete application over the web 5.To inculcate skills pertaining to data access technology geared to facilitate the development of disconnected systems using .NET platform. 6.To familiarize the student with the development of windows-based application using C# 7.To familiarize the student with the development of web-based application using ASP.NET 8.Handle various toolkit like AJAX 9.Utilize the concepts of JavaScript
2	**CC-202: Advanced Java**	1.The student will be able to develop distributed business applications, develop web pages using advanced server-side programming through servlets and Java server pages. 2. Demonstrate approaches for performance and effective coding 3. Develop Java client/server applications. 4. Develop distributed applications using RMI 5. Develop component-based Java software using JavaBeans 6. Develop server side programs in the form of servlet 7. Understand the multi-tier architecture of web-based enterprise applications using Enterprise JavaBeans (EJB) ,use Struts frameworks, which gives the opportunity to reuse the codes for quick development and map Java classes and object associations to relational database tables with Hibernate mapping files

3	**CC-203: Android Fundamentals Development**	1.Understand Android Studio Environment and application structure. 2. Demonstrate different layouts, views, activities and intents 3. Testing and debugging of application. 4. Design good user interface for the application. 5. Able to store, retrieve and load data 6.Demonstrate background tasks & events 7. Understand publishing of app.
4	**Elective-I:CE-204 CE-204.1: Software Project Management**	1. To understand Software Project Models and Software Management Concepts. 2.To understand the various methods of Cost Estimation. 3. To Study about Software Quality Management. 4.To Study about Emerging Trends in Software Management. 5. To understand Project Evaluation.

M.Sc-II Semester-III

1	**SWM-301::Artificial Intelligence**	1. Apply problem solving by intelligent search approach. 2. Represent knowledge using AI knowledge representation techniques. 3. Design Machine Learning solution to real life problems. 4. Derive solutions for problems with uncertainty using Fuzzy theory. 5. Define a NLP problem and find a suitable solution to it. 6. To develop a good understanding of all aspects of Natural Language Processing (NLP) and Genetic algorithm
2	**CC-302: Advanced Web Technology**	1. Students will be able to develop application using MVC 2. Students will be able to understand Entity Framework 3. Students will be able to understand Web API 4. Students will be able to understand and use azure services 5. Students will be able to understand the use bootstrap
3	**CC-303: PHP**	1. Understand how server-side programming works on the web. 2. PHP Basic syntax for variable types and calculations. 3. Creating conditional structures

		4. Storing data in arrays	
		5. Using PHP built-in functions and creating custom functions	
		6. Write PHP scripts to handle HTML forms.	
		7. Understanding POST and GET in form submission. 8. How to receive and process form submission data.	
		9. Reading and writing cookies.	
		10. Create PHP programs that use various PHP library functions, and that manipulate files and directories.	
		11. Analyze and solve common Web application tasks by writing PHP programs.	
		12. Prepares the students to undertake PHP projects independently .	
4	**Elective-II: CE-304.1: Software Quality Assurance**	1. Understand the basic tenets of software quality and quality factors.	
		2. Be exposed to the Software Quality Assurance (SQA) architecture and the details of SQA components.	
		3. Understand of how the SQA components can be integrated into the project life cycle.	