



Education through self-help is our motto- KARMAVEER

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Department of BCA

2024-25

CO's PO's

Course Outcome of BCA-I (Sem-I)

PROBLEM SOLVING TECHNIQUES (SEC101)

CO1: Understand basic terminology of computers, problem solving, programming Languages and their evolution (Understand)

CO2: Create specification from problem requirements by asking questions to disambiguate the requirement statement. (Create)

CO3: Design the solution from specification of a problem and write pseudo code of the algorithm using basic building blocks or structured programming constructs (Sequence, Selection and Repetition statement). (Create)

CO4: Translate an algorithm into a C computer program (Create)

CO5: Testing and analyzing programs using debugging tools. (Analyze)

COMPUTER ARCHITECTURE CC102

CO6: To Understand the basics of Digital Electronics and Binary Number System

CO7: To Learn the implementation of Combinational Circuit.

CO8: To Learn the implementation of Sequential Circuit.

CO9: To Understand the Organization of basic computers and concept of memory organization

GENERAL ENGLISH AEC102

CO10: Explain concept of Word Formation in English Language.

CO11: Illustrate use of phrases and clauses in sentences in English Language.

CO12: Identify common errors in English Writing.

CO13: Develop reading and listening, writing and speaking skills.

INDIAN VISION FOR HUMAN SOCIETY MDE 101

CO14: Explain the concept of “Vasudhaiva Kutumbkam” and its realization process as a base for the development of vision for a human society.

CO15: Identify the universality in humans and its coexistence in existence.

CO16: Demonstrate the sense of responsibility, duties, and participation of individual for establishment of fearless society.

CO17: Explain the apparently rational, verifiable and universal solution from ancient Indian knowledge system for the holistic development of physical, mental and spiritual wellbeing of one and all, at the level of individual, society, nation and ultimately the whole world.

ENVIRONMENTAL SCIENCE AND SUSTAINABILITY VAC101

CO18: Explore the basic environmental concepts and issues relevant to the business and management field.

CO19: Recognize the interdependence between environmental processes and socioeconomic dynamics.

CO20: Determine the role of business decisions, policies, and actions in minimizing environmental degradation.

CO21: Identify possible solutions to curb environmental problems caused by managerial actions.

CO22: Develop skills to address immediate environmental concerns through changes in Business operations, policies, and decisions.

मराठी(MARATHI)-१ AEC103-I

CO23: मराठी भाषा व साहित्य अभ्यासाची अभिरुची निमाणाण होईल.

CO24: मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल.

CO25: मराठी किवतेचे आस्वादन व मूल्य निणाय करता येईल.

CO26: वैचारिक व लिलत स्वरूपाचे लेखन करता येईल.

CO27: पत्रव्यवहाराचे कौशल्य अवगत होईल.

प्रयोजनमूलक हिंदी और कहहताएँ AEC103-II

CO28: प्रयोजनमूलक हिंदी के प्रित छात्रों मे रुची बढ़ाना।

CO29: प्रयोजनमूलक हिंदी एवं उसकी उपयोगिता से छात्रों को परिचित कराना।

CO30: काव्य एवं कहानी धिवा का आस्वाद विवेचन एवं महत्व समझाना।

CO31: हिंदी किव एवं कहानीकारों तरा उनकी रचनाओं से परिचित कराना।

CO32: साहित्य के माध्यम से नैतिक मूल्य राष्ट्र ाीय मूल्य एवं उत्तिदायित्व के प्रित आस्रा निमाणाण करना।

CO33: हिंदी भाषा के श्रवण,पठण, विचार ,कल्पना एवं लेखन क्षमता का छात्र मे विकास करना।

संस्कृत (SANSKRIT)-I AEC103-III

CO34: वेदाणांचा परिचय करून देतात.

CO35: ऋग्वेदातील निवडक सूक्ााााांचा अभ्यास करतात.

CO36:सुसंस्कृतील सांकल् पना समजून घेतात

CO37:अिुननकतेच्या अनुषांगाने चे अवलोकन संस्कृतील करतात.

GERMAN-I AEC103-IV

CO38: Recognize basic grammar used in German Language

CO39: Demonstrate familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type.

CO40: Execute himself /herself and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.

CO41: Debate and interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

CO42: Assess development in German language vocabulary by interacting with others

CO43: Construct presentation of how to use and scope of German Language.

BCA-I-Sem-II

MATHEMATICS FOUNDATIONS TO COMPUTER SCIENCE – II CC103

CO44: This course helps the students to understand correct lines of arguments and proofs.

CO45: This course introduces mathematical techniques that are foundations for understanding advanced computational methods, including numerical methods and optimization.

CO46: This course helps the students to understand various problem-solving strategies and methods to tackle both theoretical and practical challenges in computer science.

DATA STRUCTURES CC104

CO47: Understand the fundamental concepts of Data Structures and their applications.

CO48: Develop problem-solving skills using Data Structures.

CO49: Implement Data Structures using C programming language

OPERATING SYSTEMS CC105

CO50: Explain the fundamentals of the operating system.

CO51: Comprehend multithreaded programming, CPU scheduling, process management, process synchronization, memory, deadlocks, and storage management.

CO52: Compare the performance of CPU scheduling algorithms

CO53: Identify the features of I/O and File handling methods.

OBJECT ORIENTED PROGRAMMING USING JAVA SEC102

CO54: To introduce the object oriented programming system concepts

CO55: To introduce syntax and semantics of Java programming language

CO56: To develop modular programs using Java

CO57: To setup JDK environment to create, debug and run Java programs

WEB TECHNOLOGIES SEC103

CO58: To understand the concepts and architecture of the World Wide Web, Markup languages along with Cascading Style Sheets.

CO59: To understand the concepts of event handling and data validation mechanisms.

CO60: To understand the concepts of embedded dynamic scripting on client side programming.

CO61: To develop modern interactive web applications

INDIAN CONSTITUTION VAC201

CO62: Explain concept of the Indian Constitution, particularly from the perspective of economic governance and business

CO63: Employ a nuanced analytical framework about ongoing constitutional debates and battles which affect the domain of business

CO64: Develop a sense of how questions of economic growth have to be balanced with other constitutional commitments, including social and economic justice.

मराठी (MARATHI)-2 उद्यम झेप-2 AEC103-I

CO65: मराठी भाषा व साहित्य अभ्यासाची अभिरुची निर्माण होईल .

CO66: मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल.

CO67: मराठी किवतेचे आस्वादन व मूल्य निणाय करता येईल.

CO68: वैचारिक व लिलत स्वरूपाचे लेखन करता येईल .

CO69: पत्रव्यवहाराचे कौशल्य अवगत होईल.

(HINDI)-2

प्रयोजनमूलक हिंदी और कहानियाँ AEC103-II

CO70: प्रयोजनमूलक हिंदी के प्रति छात्रों में रुची बढ़ाना ।

CO71: प्रयोजनमूलक हिंदी एवं उसकी उपयोगिता से छात्रों को परिचित कराना ।

CO72: काव्य एवं कहानी धिवा का आस्वाद विवेचन एवं महत्व समझाना ।

CO73: हिंदी कहानीकारों तर्ा उनकी रचनाओं से परिचित कराना ।

CO74: साहित्य के माध्यम से नैतिक मूल्य राष्ट्र ाीय मूल्य एवं उत्तदायित्व के प्रति आस्ा निमााण करना ।

CO75: हिंदी भाषा के श्रवण ,पठण, विचार ,कल्पना एवं लेखन क्षमता का छात्र में विकास करना ।

संस्कृत (SANSKRIT)-II AEC103-III

CO76: सांस्कृत ननतीसाधाीत्याचा पररचयकरून देतो.

CO77: धनतोदेशातील कर्ाााांचा पररचय करून देतो.

CO78: कर्ाााांमून धाणान्या नीतीबोिाचे नवरलेषण धकतो.

CO79: चाणक्यनीनततील श्लोकााांमून नीनतमूल्ााााांचा अभ्यास धकतो.

GERMAN-II AEC103-IV

CO80: Recall everyday familiar expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Make use of the basic grammar concepts correctly

CO81: Demonstrate familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type.

CO82: Execute himself /herself and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.

CO83: Debate and interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

CO84: Assess development in German language vocabulary by interacting with others

CO85: Construct presentation of how to use and scope of German Language.

JAPANESE-II AEC103-V

CO86: Recognize basic grammar used in Japanese Language

CO87: Relate and demonstrate regional languages into Japanese language.

CO88: Experiment Japanese vocabulary in day-today speaking.

CO89: Debate and interact in a simple way with other persons.

CO90: Develop basic Japanese language skills (listening, speaking, writing, and reading).

CO91: Produce himself /herself with others and can ask and answer questions.

RUSSIAN-II AEC103-VI

CO92: Explain basic knowledge of Russian Language grammar.

CO93: Construct meaningful and grammatically correct sentences in Russian language.

CO94: Develop Russian Language skill (reading, writing, listening, speaking).

CO95: Investigate career opportunities in Foreign Languages.

BCA-II (SEM-III)

RDBMS - CC 301

CO96: Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL

CO97: tuple and domain relation expression from queries.

CO98: Apply relational database theory and be able to describe relational algebra expression, CO

CO99: tuple and domain relation expression from queries.

CO100: Prepare SQL queries that use multiple tables.

CO101: Prepare SQL queries that involve correlated and non-correlated subqueries, outer joins, inner joins, self joins.

CO102: Assess the differences between subqueries and joins.

CO103: Use built-in functions successfully.

CO104: Produce user friendly output by using formatting features of SQL.

CO105: Analyse the effects of various data types and the use of NULLs.

CO106: Prepare SQL queries for ordering data and grouping data.

CO107: Write SQL queries for data definition/manipulation/alteration.

CO108: Identify and describe security concepts including user-ids, levels of privileges, views.

CO109: Describe and demonstrate constraints, triggers and cursors.

CO110: Produce programs with embedded SQL including processing stored procedures.

Computer Networks and Internet CC 302

CO111: Explain computer networking basics.

CO112: Describe how signals are used to transfer data between nodes.

CO113: Identify the different types of network topologies and protocols

CO114: Discuss and Analyze flow control and error control mechanisms and apply those using standard data link layer protocols

CO115: Describe the layered protocol model.

CO116: Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer

CO117: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure.

CO118: Understand network security and define various protocols such as FTP, HTTP, Telnet, and DNS

Data Structure using C CC 303

CO119: Implement appropriate data structure for the required programs using a programming language such as C.

CO120: Demonstrate the linear and non-linear data structures, sorting and searching operations, hashing.

CO121: Analyse and implement various searching and sorting techniques.

CO122: Implement various types of linked lists and their applications.

CO123: Classify different data structures such as stack, queues, linked list, trees and traversal algorithms.

CO124: Solve problem involving graphs, trees and heaps and hashing concept

CO125: Understand basic data structures such as arrays, linked lists, stacks and queues.

Elements of Statistics AEC 304

CO126: Describe the scope and necessity of Statistics.

CO127: Explain different types of data.

CO128: Tabulate and represent the data in diagrams and graphs.

CO129: Calculate measures of Central Tendency i. e Mean , Mode, Median. Partition value Quartiles i.e.Q₁,Q₂,Q₃

CO130: Analyse statistical data using appropriate measures of Central Tendency.

CO131: Calculate measures of Dispersion i. e Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance and Coefficient of Variation.

CO132: Analyse statistical data using appropriate measures of Dispersion.

CO133: Calculate and interpret the correlation coefficient and regression coefficients.

CO134: Distinguish various sampling techniques i.e. Simple random sampling and Stratified random sampling.

CO135: Identify the components of time series and the method of measuring trend.

Human Resource Management and Materials Management (AEC305)

CO136: Recognize the basic concepts of human resource management.

CO137: Discuss the Applicability of Human Resource Planning Process.

CO138: Elaborate Performance Appraisal, Training and Development, Wage and salary Administration.

CO139: Explain functions of material management.

CO140: Demonstrate 5 R in purchasing and Inventory control techniques.

CCL 306 Lab Course-V Based on CC301

- CO141:** Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL
- CO142:** Apply relational database theory and be able to describe relational algebra expression. tuple and domain relation expression from queries.
- CO143:** Prepare SQL queries that use multiple tables.
- CO144:** Prepare SQL queries that involve correlated and non-correlated subqueries, outer joins, inner joins, self joins.
- CO145:** Assess the differences between subqueries and joins.
- CO146:** Use built-in functions successfully.
- CO147:** Produce user friendly output by using formatting features of SQL.
- CO148:** Analyse the effects of various data types and the use of NULLs.
- CO149:** Prepare SQL queries for ordering data and grouping data.
- CO150:** Write SQL queries for data definition/manipulation/alteration.
- CO151:** Identify and describe security concepts including user-ids, levels of privileges, views.
- CO152:** Describe and demonstrate constraints, triggers and cursors.
- CO153:** Produce programs with embedded SQL including processing stored procedures.

CCL 307 Lab Course VI based on CC303

- CO154:** Differentiate static and dynamic memory allocation techniques
- CO155:** Implement various operations on linear and non-linear data structures.
- CO156:** Analyze and implement different searching and sorting techniques.
- CO157:** Identity the appropriate data structure to solve a given problem.
- CO158:** Identify the appropriate data structures and algorithms for solving real world problems.
- CO159:** Describe data structures such as stacks, queues, Search trees, and hash tables to solve various computing problems.

SEC SB308 Skill Development III

- CO160:** Understand Business etiquette and manners
- CO161:** Enhance self-Understanding.

BCA-II (SEM-IV)

Object Oriented Programming Using C++ - CC 401

- CO162:** Analyze, write, debug, and test basic C++ codes using the approaches introduced in the course.
- CO163:** Classify inheritance with the understanding of early and late binding, generic programming.

CO164: Examine object-oriented programming and advanced C++ concept.

CO165: Use virtual and pure virtual function and complex programming language.

CO166:- Explain dynamic memory management techniques using pointers, constructors, destructors,

CO167: Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.

Software Engineering - CC 402

CO168: Distinguish life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software.

CO169: Develop SRS document.

CO170: Use of analysis and design tools for system development.

CO171: Prepare software engineering concepts in software development to develop quality software.

CO172: Evaluate the various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.

CO173: Plan a software engineering process life cycle, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements

CO174: Demonstrate the software project management skills through case studies.

PHP- CC 403

CO175: explain the environment of PHP programming Language.

CO176: Develop web applications using PHP.

CO177: List the major elements of the PHP & MySQL work and explain why PHP is good for web development.

CO178: Explain various operators in PHP.

CO179: The difference between GET and POST requests.

CO180: How to use cookies to store some data in the browser and pass it to the next request.

CO181: How to use a session cookie to store data on the server instead of in the browser.

CO182: How to upload files to the website.

CO183: Develop program using control statements.

CO184: Develop program using functions and array.

CO185: Perform database operations on PHP.

Entrepreneurship Development - AEC 404

CO186: Discuss the concept of entrepreneurship.

CO187: Define characteristics, function and types of entrepreneurs and know the role of Entrepreneurship in Economic Development.

CO188: Identify Business Opportunities and prepare business plan.

CO189: Know project finance agencies.

CO190: Identify New Opportunities and Challenges in digital entrepreneurship.

Lab Course-VII Based on CC401- CCL 406

CO191: Prepare students in programming using object oriented concepts with C++.

CO192: Solve the concepts of object-oriented programming.

CO193: Developing applications using Friend functions, Inheritance and polymorphism.

CO194: Design and implement programs using classes, objects and operator overloading.

CO195: Relate virtual and pure virtual function & complex programming situations.

Lab Course-VIII Based on CC403 CCL 407

CO196: Install & configure MySQL server.

CO197: Write a simple PHP program using expressions and operators.

CO198: Develop simple applications to update, delete table from database.

CO199: Write a simple program to demonstrate various built in string functions.

CO200: Write a simple PHP program to set cookies and write it.

CO201: Write a PHP program to create and manipulate array.

CCL 408 Mini Project

CO202: Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's.

CO203: Have a good understanding of Web Application Terminologies, Internet Tools other web services.

CO204: Learn how to link and publish websites

SEC SB 409 Environmental Studies

CO205: Explore the basic environmental concepts and issues relevant to the business and management field.

CO206: Recognize the interdependence between environmental processes and socioeconomic dynamics.

CO207: Determine the role of business decisions, policies, and actions in minimizing environmental degradation.

CO208: Identify possible solutions to curb environmental problems caused by managerial actions.

BCA-III (SEM-V)

Java Programming- CC 501

- CO209:** Understand the features of Java Language
- CO210:** Demonstrate Object-Oriented Programming using Java
- CO211:** Develop Multithreaded and Networking applications
- CO212:** Design GUI applications using AWT and Swing.
- CO213:** Use the Java SDK environment to create, debug and run simple Java programs
- CO214:** Implement applications with simple graphical user interfaces.

Data Warehousing and Data Mining –(CC 502

- CO215:** Define the Data warehouse architecture and its Implementation.
- CO216:** Describe the Architecture of a Data Mining system.
- CO217:** Understand the various Data pre-processing Methods.
- CO218:** Per Describe the Architecture of a Data Mining system.
- CO219:** Distinguish the various Data pre-processing Methods.
- CO220:** Perform classification and prediction of data
- CO221:** Perform classification and prediction of data

DOT NET Technology – (CC-503)

- CO222:** Understand features of C# DOT NET
- CO223:** Implement various server controls for website development
- CO224:** Apply validation and state management for interactive website development
- CO225:** Design and develop dynamic web application using ADO.Net

Web Content Management (WordPress/Joomla) DSE-504

- CO226:** Understand different CMS platforms and its applications
- CO227:** Apply themes and customize design for the websites using Wordpress
- CO228:** Understand the essential concepts of Joomla and its features
- CO229:** Develop and manage a web site using Joomla Modules and Template

Emerging Trends in Database – DSE -504

- CO230:** Differentiate between SQL and NoSQL database system.
- CO231:** Analyze given data using MongoDB.
- CO232:** Understand the different types of Cloud databases
- CO233:** Identify emerging trends in database management
- CO234:** Analyse the effects of various data types and the use of NULLs.
- CO235:** Prepare SQL queries for ordering data and grouping data.
- CO236:** Write SQL queries for data definition/manipulation/alteration

Linux DSE 504

CO237: Understand the basic components of Operating Systems and their interactions.

CO238: Explain the structure and functions of operating systems along with their components, types and working.

CO239: Understand the basics of File, Device and Disk Storage Management in Linux

CO240: Learn Shell Programming through Linux

CO241: Understand VI editor in Linux

CO242: Learn file handling command in linux

Digital Marketing- GE-505.1

CO243: Learn the applications of Digital Marketing

CO244: Analyze the different digital marketing avenues.

CO245: Examine digital marketing tools.

CO246: Build real life problems in the domain of digital marketing

CO247: Understand affiliate marketing

Management Information System –GE-505.2

CO248: Understand the fundamental principles of information systems

CO249: Describe the types of management and decision making

CO250: Demonstrate different types of IS used in business.

CO251: Explain various applications of MIS

E-Commerce-GE-505.3 s

CO252: Understand the various concept of E-Commerce

CO253: Know the different e-payment systems

CO254: Analysis E-Security options

CO255: Examine the different Security Solutions

Skill Development IV SEC SB506

CO256: Reflect on the importance of Professional behavior.

CO257: Articulate and adapt the various facets that make up one's personality.

Lab Course IX based on CC501

CO258: Implement the Concept of OOP in Java through simple programs.

CO259: Implementation and Evaluation of concept related to class and

CO260: Understand Inheritance, concept of Multiprogramming and Exception Handling.

CO261: Implement the Concept of interface, packages

Lab course-X Based on CC504 and CC503

CO262: Design console applications using C#.

CO263: Design web application using ASP.Net

B.C.A Part-III (Sem-VI)

Python CC-601

CO264: Acquire programming skills in core Python.

CO265: Develop Python programs with conditionals and loops.

CO266: Understand advance datatypes in Python Programming.

CO267: Develop problem solving skills and their implementation through Python.

CO268: Understand Modules, packages in Python Programming.

CO269: Understand file handling in Python Programming.

IT Security-CC-602

CO270: Understand the concept and need of IT security.

CO271: Identify different security threats to information systems.

CO272: Describe security controls used for IS security.

CO273: Understand provisions in IT Act 2000 and Design Security policy for IT Enabled Organization.

Internet of Things(IoT) DSE 603.1

CO274: Understand the fundamentals of Internet of things.

CO275: Identify different components in IoT environment

CO276: Demonstrate Hardware and Software configuration for IoT using Arduino

CO277: Differentiate between different types of IoT applications using Arduino

Android Programming DSE 603.2

CO278: Understand the basics of Android and Android Platform

CO279: Identify different components used in user interface related to Android application development

CO280: Analyze the importance of data persistence in mobile environment

CO281: Illustrate different advanced topic used in Android development

R Programming DSE 603.3

CO282: Understand the fundamental syntax of R through practice exercises.

CO283: Describe the control statements and functions in R.

CO284: Analyze a data set in R and represent findings using the appropriate R packages.

CO285: Use data visualization tools.

CO286: Understand data types in R

CO287: Understand graphs in R lang.

IT Management GE 604.1

CO288: Understand IT assets and describe functions of IT Department

CO289: Identify IT infrastructure components.

CO290: Describe network infrastructure components and security management activities.

CO291: Demonstrate best practices and operational processes in Data Centre Management

Cloud Computing GE604.2

CO292: Understand the fundamental principles of Cloud Computing.

CO293: Understand the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing.

CO294: Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about, the characteristics, advantages and

CO295: Challenges brought about by the various models and services in cloud computing.

CO296: Describe cloud computing applications

Knowledge Management GE604.3

- CO297:** Explain the fundamentals of knowledge management
- CO298:** Understand of the Knowledge Management life cycle.
- CO299:** Categorize the Knowledge Management tools.
- CO300:** Implement Knowledge Management in different sectors.
- CO301:** Knowledge Management Techniques and Tools.
- CO302 :** Knowledge Management and E-commerce

Soft Skills & Personality Development SEC SB 605

- CO303:** Comprehending the Value of a Professional Mindset
- CO304:** Enunciating and Adapting the Myriad Facets of One's Personality

Lab Course-XI Based on CC 601

- CO305:** Demonstrate and use different Datatypes in Python.
- CO306:** Apply various built looping statements and Modules provided by Python.

Lab Course XI based on DSE603

- CO307:** Demonstrate the circuit configuration for IoT applications using Arduino boards.
- CO308:** Apply the different functions provided in Arduino libraries for execution of IoT applications

Lab Course XI based on DSE603

- CO309:** Design Mobile Applications using different UI components in Android.
- CO310:** Apply Android activities to develop mobile applications

Lab Course XI Based on DSE 603

- CO311:** Apply syntax of R through practice exercises.
- CO312:** Implement the control statements, functions, data visualization. in R.
- CO313:** Implement the packages .in R.
- CO314:** Implement the leap year program in R.
- CO315:** Implement the prime or not program in R.
- CO316:** Implement the odd even program in R.

Major Project CCL608

ABBREVIATIONS

GUI- graphical user interface.

SQL- Structured Query Language.

OLAP -Online analytical processing.

IT. -Information technology.

DDL- Data Defination Language.

DML- Data Manipulation Language.

DBMS- Database Management System.

OS- Operating System.

Linux - Lovable Intellect Not Using XP.

FIFO- First In, First Out.

LIFO- Last In Last Out.

HRP- Human Resource Planning.

B2B- Business to Business.

B2C- Business to Customer.

C2C -Customer to Customer.

C2B -Customer to Business.

DCL - Data Control Language .

APL- Above Poverty Line.

SDLC- Software Development Life Cycle.

SE- Software engineering.

ADO.Net- ActiveX Data Object.