ADITYA
DEGREE COLLEGE FOR WOMEN
Affiliated to Adikavi Nannaya University
Approved by APSCHE | Recognised by UGC under Section 2(f) & 12(B)
Sambamurthy Nagar, KAKINADA, A.P - 533001, INDIA.

CO-PO MAPPING - BCA PROGRAM

COURSE OUTCOMES-BCA PROGRAM

Semester -1

Course Code	Course Name	CO NO	Course Outcome	Program Outcomes														
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ENG-I	English-I (A Course in Communication and Soft Skills)	CO1	Use grammar effectively in writing and Speaking.	2	3								1	2				2
		CO2	Demonstrate the use of good vocabulary.	3	3								2	1				2
		CO3	Demonstrate an understanding of writing skills.	2	2								1	3				2
		CO4	List Soft Skills in professional and daily life.	3	3								3	2				1
		CO5	List the tools of communication skills.	3	3								3	2				1
LSC-1	Life Skill Course - I (ENTEPRENEURSHIP DEVELOPMENT)	CO1	Recall the concept of Entrepreneurship, its applications and scope.	3	2					2							2	
		CO2	List the types of financial institutions that help the business at Central, State and Local Level.	2	3					1							2	
		CO3	Recall Central and State Government policies, A ware of various tax incentives.	2	3					2							1	
		CO4	Summarize on generating a broad idea for a starting an enterprise/start up.	3	1					2							2	
		CO5	Discuss on preparing a Project Report for a start up and differentiate between financial, technical analysis an business feasibility.	2	2					2							3	
		CO6	Operate data using charts and spread sheets.	3	2					3							1	
SDC-1	Skill Development Course - I (Insurance Promotion)	CO1	List the field level structure and functioning of insurance sector and it's role in protecting the risks.	2	2			2				2						
		CO2	Recall pertaining skills and their application for promoting insurance coverage	2	3			3				2						
		CO3	Explain the Insurance Agent examination conducted by IRDA	3	2			1				2						
		CO4	Summarize 'promoting insurance coverage practice' as one of the career options.	2	1			3				1						
C1	Computer Fundamentals & Office tools	CO1	Describe the usage of computers and why computers are essential components in business and society.	2									3	1				
		CO2	Identify categories of programs, system software and applications. Organize and work with files and folders.	2									3	2				
		CO3	Operate on edit a word document and working with macros.	3									2	2				
		CO4	Operate on work sheets and using various functions.	3									2	1				
		CO5	Apply the presentations and inserting multimedia in them	3									2	2				
C1-P	Computer Fundamentals & Office tools-Lab	CO1	Discuss about the impact of computers on society.	2									2	3				
		CO2	Recall basic hardware peripherals.	3									3	2				
		CO3	List different number systems	3									2	1				
		CO4	Explain the the basics of programming.	1									3	2				
C2	Programming in C	CO1	Demonstrate the basic terminology used in computer programming	3		1	3						3	1				
		CO2	Compute programs in C language.	3		1	3						3	1				
		CO3	Use different data types in a computer program.	3		1	3						3	1				
		CO4	Compute programs involving decision structures, loops and functions.	3		2	3						3	1				
		CO5	Describe the dynamics of memory by the use of pointers and Structures.	3		2	2						3	1				
		CO6	Apply different operations in File handling.	3		2	2						3	1				
C2-P	Programming in C –Lab	CO1	Identify the logic for a given problem.	2		2	3						2	1				
		CO2	Write the algorithm of a given problem.	3		2	3						2	1				
		CO3	Identify the syntax and construction of C programming code.	3		2	3						2	2				
		CO4	Discuss steps involved in compiling, linking and debugging C code.	3		2	3						2	1				
		CO5	Write programs to print output on the screen as well as in the files	3		2	3						2	1				
		CO6	Identify proper use of user defined functions	2		1	3						2	1				
C3	Numerical and Statistical Methods	CO1	Apply appropriate numerical methods to obtain appropriate solutions to difficult mathematical problems.	3		2	3	2					2	1				
		CO2	Apply various statistical techniques such as Measures of Central Tendency and Dispersion.	2		2	3	3					2	1				
		CO3	Demonstrate relationship between variables using the method of Correlation and Fit Analysis.	2		2	3	1					2	1				
		CO4	Solve programs of various Numerical Methods and Statistical techniques for solving mathematical problems.	3		2	3	2					2	1				
	Numerical and Statistical	CO1	Identify the system of equations using various methods	3		2	3	1					2	2				
		CO2	Solve the roots of the equation using various methods of techniques	2		2	3	2					2	2				

C3-P	Numerical and Statistical Methods-Lab	CO3	Solve the different integral values using various techniques.	2		1	3	3					1	1				
		CO4	Solve the standard deviation and rank correlation coefficient, coefficient of skewness for tabular data.	2		2	3	3					1	1				

Semester -2 **Program Outcomes**

Course Code	Course Name	CO NO	Course Outcome	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ENG-II	English - II (A Course In Reading & Writing Skills)	CO1	Use reading skills effectively.	3	2								3	3				2
		CO2	List the different types of texts.	3	1								3	2				1
		CO3	Summarize what is being read.	3	3								2	2				1
		CO4	Demonstrate repository of active vocabulary.	3	3								1	2				1
		CO5	List the good writing strategies.	3	1								2	1				1
		CO6	Write well for any purpose.	2	1								2	1				2
LSC-II	Life Skill Course - II (INFORMATION & COMMUNICATION TECHNOLOGY)	CO1	List the literature of social networks and their properties.	3									2	3				
		CO2	Explain which network is suitable for whom.	2									3	2				
		CO3	Discuss about the skills to use various social networking sites like twitter, flickr, etc.	2									3	3				
		CO4	Write few GOI digital initiatives in higher education.	1									1	1				
		CO5	Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research.	3									2	2				
		CO6	Compare internet threats and security mechanisms.	2									2	2				
SDC-II	Skill Development Course - II (Survey & Reporting)	CO1	Write the basics of survey and reporting needs and methods	3	3					2			1	1				
		CO2	Discuss on designing of a questionnaire	2	3					2			1	1				
		CO3	Demonstrate on a simple and valid survey and Collect data	2	3					3			1	2				
		CO4	Summarize on interpret data and submit report.	2	3					3			1	2				
SDC-III	Skill Development Course - III (Business Communication)	CO1	Identify the types of business communication and correspondence	3	2								2	2				
		CO2	List the processes like receiving, filing and replying	2	3								1	1				
		CO3	Explain about preparing good business communications	2	3								2	2				
		CO4	Write about organizational communication requirements and presentations.	3	1								1	2				
		CO5	Discuss search engine, payment gateways and SEO techniques.	3	2								1	2				
C4	Data Structures	CO1	Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms.	3		2	3						3	3				
		CO2	Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.	3		2	3						3	2				
		CO3	Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs	3		2	3						3	1				
		CO4	Demonstrate different methods for traversing trees	3		3	3						3	1				
		CO5	Compare alternative implementations of data structures with respect to performance	3		3	3						3	1				
		CO6	Compare and contrast the benefits of dynamic and static data structures implementations	3		2	1						2	2				
		CO7	Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.	2		2	3						3	1				
		CO8	Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing	1		3	2						3	1				
C4-P	Data Structures-Lab	CO1	Identify the appropriate data structure for given problem.	3		1	2						3	2				
		CO2	Solve problems using different data structures.	3		2	2						3	1				
		CO3	Solve problems using trees, graphs and hash tables addressing various issues.	2		3	2						2	1				
C5	Introduction to Python Programming	CO1	Demonstrate the concepts of python programming	3		1	1						3	3				
		CO2	Identify logic for Problem Solving.	3		1	3						3	2				
		CO3	Apply the problem solving skills using syntactically simple language	3		1	3						3	1				
		CO4	Compute new GUI based programming to solve industry standard problems	2		2	3						1	1				
C5-P	Introduction to Python Programming Lab	CO1	List the python data structures like Lists, Tuples, Sets and dictionaries.	3		2	3						3	2				
		CO2	Compute practical and contemporary applications using Functions, Modules and Regular Expressions.	1		2	3						2	2				
		CO3	Solve Python programs with conditionals and loops.	2		3	3						1	1				
		CO4	Solve programs on Read and write data from/to files in Python	1		2	3						1	2				
C6	Data Base Management System	CO1	Write about the definitions of Database and DBMS.	3		1	1						3	3				
		CO2	Demonstrate the fundamental concepts of DBMS with special emphasis on relational data model.	3		1	2						3	3				
		CO3	Demonstrate normalization theory and apply such knowledge to the normalization of a database	3		1	3						3	2				
		CO4	Design database schemas based on the model.	2		2	3						2	2				
		CO5	Create a small database using SQL.	1		2	3						2	1				
		CO6	Apply Use, Store and Retrieve data in database.	1		2	3						1	1				
C6-P	Data Base Management	CO1	Write the basic knowledge of SQL queries and relational algebra.	3		2	2						3	1				
		CO2	Construct database models for different database applications.	3		1	1						3	2				

C8-P	System Lab	CO3	Apply normalization techniques for refining of databases.	3		2	2						3	1				
		CO4	Operate on various triggers, procedures, and cursors usingPL/SQL.	2		2	3						3	1				

Semester -3 **Program Outcomes**

Course Code	Course Name	CO NO	Course Outcome	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ENG-III	English - III (A Course In Conversational Skills)	CO1	Discuss on Speaking fluently in English.	3	2	1							3	2				2
		CO2	Demonstrate confidently in any social interaction.	2	2	1							2	2				3
		CO3	Summarize on professional discourse.	2	2	1							2	2				1
		CO4	Demonstrate critical thinking.	3	2	3							1	1				1
		CO5	Identify conversational skill by observing the professional interviews.	3	2	1							2	2				2
LSC-III	Life Skill Course - III (ENVIRONMENTAL EDUCATION)	CO1	List the nature, components of an ecosystem and that humans are an integral part of nature.	3									2	2				
		CO2	Write the importance of environment, the goods and services of a healthy biodiversity, dependence of humans on environment.	3									2	2				
		CO3	Explain the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.	3									2	2				
		CO4	Discuss the laws/ acts made by government to prevent pollution, to protect biodiversity and environment a s a whole.	3									1	2				
		CO5	List the international agreements and national movements, and realize citizen's role in protecting environment and nature.	3									1	2				
LSC-IV	Life Skill Course - IV (ANALYTICAL SKILS)	CO1	Identify the basic concepts of arithmetic ability, quantitative ability, logical reasoning, business computations and data interpretation and obtain the associated skills.	3			3	3					2	1				
		CO2	List the competency in the use of verbal reasoning.	3			2	3					2	1				
		CO3	Apply the skills and competencies acquired in the related areas.	2			2	1					2	1				
		CO4	Solve problems pertaining to quantitative ability, logical reasoning and verbal ability inside and outstand the campus.	2			3	3					2	1				
SDC-IV	Skill Development Course - IV (Online Business)	CO1	Identify the online business and its advantages and disadvantages	3	3					2			3	2			2	
		CO2	Recall new channels of marketing, their scope and steps involved	3	3					2			2	1			2	
		CO3	Summarize the procurement, payment process, security and shipping in online business	3	3					2			2	2			1	
		CO4	Develop new marketing tools for online business	2	2					2			2	1			2	
		CO5	List the search engine, payment gateways and SEO techniques.	3	2					3			3	2			2	
C7	Accounting and Financial Management	CO1	Operate Company Setup &Configurations	3		2	2						1	1				
		CO2	Summarize Recording Financial Transactions.	3		2	2						1	1				
		CO3	Identify Financial Reports Analysis	3		2	2						1	1				
C7-P	Accounting and Financial Management Lab	CO1	Describe the steps for how to create, delete, shut, alter a company using Tally	3		2	3						3	1				
		CO2	Demonstrate creation of different type of Vouchers using Tally	3		2	3						3	1				
		CO3	List Trial Balance, Ledger Balance, Profit and Loss Accounts, Balance Sheet using Tally	3		2	3						2	1				
C8	Object Oriented Programming through Java	CO1	Demonstrate good object-oriented programming skills in Java	3		1	2						3	3				
		CO2	Apply and implement selected design patterns in Java	3		1	2						3	1				
		CO3	Identify the capabilities and limitations of Java	2		2	3						3	1				
		CO4	Summarize common errors in Java and its associated libraries	2		3	3						3	1				
		CO5	Develop excellent debugging skills	3		3	2						2	1				
C8-P	Object Oriented Programming through Java Lab	CO1	Summarize the necessity for Object Oriented Programming paradigm and over structured programming	3		1	2						3	3				
		CO2	Develop java programs, analyze, and interpret object oriented data and report results.	3		1	3						3	2				
		CO3	Design an object oriented system, AWT components or multithreaded process as per needs and specifications.	3		2	3						2	1				
		CO4	Demonstrate an ability to visualize and work on laboratory and multidisciplinary tasks like console and windows applications both for standalone and Applets programs	3		2	3						2	1				
		CO5	Write simple GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles.	2		2	2						1	1				
		CO7	Describe the programming skills in the Java language.	3		3	2						2	2				
		CO8	Design a computer program to solve real world problems based on object-oriented principles.	3		3	3						1	1				
		CO1	Demonstrate the main components and Structure of Operating System& their functions.	3			1						3	3				

C9	Operating Systems	CO2	Summarize various ways of Process Management& CPU Scheduling Algorithms.	3			3						3	2					
		CO3	Operate on various device and resources like Memory, Time and CPU Management techniques in distributed systems.	3			3						3	2					
		CO4	Apply different methods for Preventing Deadlocks in a Computer System.	2			3						3	1					
		CO5	Create and build an Application/Service over the UNIX operating system.	2			3						2	1					
C9-P	Operating Systems Lab	CO1	Write and execute simple Unix commands in Unix environment	3		2	3						3	3					
		CO2	Operate on editing a text files using the standard commands.	3		2	3						3	3					
		CO3	Operate on Shell scripts to perform various operations	3		2	3						3	2					
		CO4	Develop different scheduling Algorithms using operating system concepts	3		3	3						2	2					
		CO5	Operate various file/directory handling commands.	3		2	3						3	3					

Semester -4

Program Outcomes

Course Code	Course Name	CO NO	Course Outcome	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C10	Cyber Laws	CO1	Summarize ongoing developments in law relating to information technologies.	3									2	1				
		CO2	Explain areas of doctrinal and political debate surrounding rules and theories;	3									2	1				
		CO3	List the rules and theories in terms of internal coherence and practical outcomes.	2									2	1				
		CO4	Discuss on the analysis and evaluation contained in primary and secondary sources.	2									2	1				
C10-P	Cyber Laws Lab	CO1	Identify how to recovering deleted files from a hard disk.	3		1	3						2	1				
		CO2	Recall how to Gather,view and locate various file formats and evidences	3		1	3						2	1				
		CO3	Compute on cyber crime scenarios	2		2	3						2	1				
		CO4	Solve programs on data from packets	1		2	3						2	1				
C11	Data Mining and Ware Housing	CO1	List the types of the data to be mined and present a general classification of tasks and primitives to integrate a data mining system.	3		2	1						3	1				
		CO2	Apply preprocessing statistical methods for any given raw data	2		2	2						2	1				
		CO3	Summarize interesting patterns from large amounts of data to analyze and extract patterns to solve problems, make predictions of outcomes	3		3	3						2	1				
		CO4	Identify the roles that data mining plays in various fields and manipulate different data mining techniques	2		3	2						2	1				
		CO5	Apply proper data mining algorithms to build analytical applications.	2		3	3						2	1				
		CO6	List the wide range of emerging and newly-adopted methodologies and technologies to facilitate the knowledge discovery.	2		3	3						2	1				
C11-P	Data Mining and Ware Housing Lab	CO1	List the various kinds of tools.	3		1	2						3	2				
		CO2	Demonstrate the classification, clustering and etc. in large data sets.	3		1	3						2	1				
		CO3	Solve mining algorithms as a component to the exiting tools.	3		3	3						2	1				
		CO4	Apply mining techniques for realistic data.	2		2	2						2	1				
C12	Web Programming	CO1	Identify the Building Blocks of PHP, Access array elements	3		1	3						3	3				
		CO2	List various functions and handle data using files	3		1	2						3	2				
		CO3	Develop Forms, Sessions, Cookies	3		1	3						3	1				
		CO4	Develop & implement JavaScript	3		2	3						3	2				
C12-P	Web Programming Lab	CO1	Build HTML Pages	3		1	3						3	3				
		CO2	Solve programs using JavaScript for Validations	3		2	3						3	2				
		CO3	Solve programs in PHP	3		1	3						3	2				
		CO4	Develop forms and connect to database using MYSQL	2		2	2						2	1				
C13	Data Communications & Networking	CO1	Define computer networks, list network configurations, types, topologies, the applications of computer networks in different fields, network models and description of physical layer.	3			1						3	3				
		CO2	Explain flow and error control at the data link layer with associated protocols.	3			3						3	2				
		CO3	List the shared channel access methods, associated protocols and Wired & Wireless LAN standards and implementations.	3			1						3	2				
		CO4	List the types of networking devices / equipments and also explain the addressing scheme used at the network layer.	3			3						3	1				
		CO5	Explain how network layer, transport layer and application layer facilitates the transfer of message from one node to another in a global network	3			1						3	1				
		CO1	List the wired computer network topologies.	3		1	1						3	3				
		CO2	Describe how to use the relevant network model for the specified data communication system.	3		1	2						3	3				

C13-P	Data Communications & Networking Lab	CO3	Solve how to Configure the network component and assign IP address	2		2	2						3	1				
		CO4	Use transmission medium and modem for data transmission.	2		2	3						3	1				
		CO5	Solve on error detection/correction and flow control of data in the data network.	2		3	3						3	1				
C14	Data Analytics Using R	CO1	Identify new approaches to dramatically improve their ability to grasp information hiding in their data	3		1	2						2	2				
		CO2	Describes any effort to help people understand the significance of data by placing it in a visual context.	3		1	2						2	2				
		CO3	Recall Patterns, trends and correlations that might go undetected in text-based data.	3		2	3						2	1				
		CO4	Discuss about charts, plots and visualizations.	3		2	3						2	1				
		CO5	List data visualization package for the statistical programming language R.	3		2	3						2	1				
C14-P	Data Analytics Using R Lab	CO1	Identify the basics of data analytics using concepts of statisticsand porbability	3		2	1						2	1				
		CO2	Apply various inferential statistical analysis techniques to describe data sets and withdraw useful conclusions from acquired data set.	3		2	2						1	1				
		CO3	Summarize and solve the data analytics techniques using various tools	3		2	3						2	1				
		CO4	Solve advanced techniques to conduct thorough and insightful analysis and interpret the results	3		2	3						1	1				
		CO5	Apply data science concept and methods to solve problems in real world context	2		2	3						1	1				
C15	Object Oriented Software Engineering	CO1	Describe the three pillars of object-orientation methodologies and explain the benefits of each.	3			1						3	3				
		CO2	Develop use case documents that capture requirements for a software system.	3			1						3	2				
		CO3	Develop class diagrams that model both the domain model and design model of a software system.	3			2						3	1				
		CO4	Design interaction diagrams that models the dynamic aspects of a software system.	3			3						3	1				
		CO5	Identify the facets of the Unified Process approach to designing and building a software system.	2			2						2	1				
		CO6	Develop a model for the user interface (UI) of a software application	2			3						1	1				
C15-P	Object Oriented Software Engineering Lab	CO1	Identify the software engineering methodologies involved in the phases for project development	3			1						3	2				
		CO2	List the open source tools used for implementing software engineering methods.	3			2						2	1				
		CO3	Develop product-prototypes implementing software engineering methods.	2			3						2	1				
		CO4	Operate on the system and its design in object oriented manner approach using UML with open source tools	1			3						2	2				

Semester -5

Program Outcomes

Course Code	Course Name	CO_NO	Course Outcome	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6A	Machine Learning Using Python	CO1	Identify the characteristics of machine learning.	3		1	1						3	3				
		CO2	Summarize the Model building and evaluation approaches	3		1	1						2	2				
		CO3	Apply Bayesian learning and regression algorithms for real-world Problems.	2		3	3						2	1				
		CO4	Apply supervised learning algorithms to solve the real-world Problems.	2		3	3						2	1				
		CO5	Apply unsupervised learning algorithms for the real world data.	2		3	3						1	1				
6A-P	Machine Learning Using Python Lab	CO1	Write the implementation procedures for the machine learning algorithms	3		3	3						2	2				
		CO2	Solve Python programs for various Learning algorithms.	3		3	3						1	1				
		CO3	Apply appropriate data sets to the Machine Learning algorithms	3		3	3						1	1				
		CO4	Identify and apply Machine Learning algorithms to solve real world problems	3		3	3						1	1				
7A	Digital Imaging	CO1	List Types of Graphics, Types of Objects, Types of video editing tools	3			1						3	2				
		CO2	Identify editing and altering photographs for through a basic tool box	3			2						2	1				

		CO3	Recall about using the layers.	3			2						2	1				
		CO4	Operate on the selection tools, repair tools	3			2						2	1				
		CO5	Apply filters and can show their skills.	2			2						2	1				
7A-P	Digital Imaging Lab	CO1	List different types of images and how to use basic and advanced features of GIMP Software for creating and image editing tools.	2			3						2	1				
		CO2	Design visiting cards and cover page of a book	2			2						2	1				
		CO3	Design Brochures,Phamphlets, Title designing ,Image modicfications using image tools.	2			2						2	1				
		CO4	Operate on layers, filters,vector graphics using image editing tools.	1			3						2	1				
6B	Cyber Security And Malware Analysis	CO1	Identify the computer networks, networking tools and cyber security	3			2						2	2				
		CO2	Describe about NIST Cyber Security Framework	2			2						2	1				
		CO3	Identify the OWASP Vulnerabilities	2			2						2	1				
		CO4	Operate various Malware analysis tools	2			2						2	1				
		CO5	Identify about Information Technology act 2000	2			2						2	2				
6B-P	Cyber Security And Malware Analysis Lab	CO1	Identify on Cyber security and protection of electronic systems and information from malware attacks.	2			3						2	1				
		CO2	Operate on configuration of LAN using switch and router	2			2						2	1				
		CO3	Understand and Implementaton of Trojan tools.	2			2						2	1				
		CO4	Identify and implemnt the packet sniffing mechanism using wireshark tool	2			2						2	1				
7B	Internet Of Things	CO1	Identify various applications of IOT in real world and industry domain·															
		CO2	Recall the revolution of Internet in Mobile Devices, Cloud & Sensor Networks·	3			1						3	1				
		CO3	Identify building blocks of Internet of Things and characteristics	3			1						3	1				
		CO4	Design and develop IOT devices	2			3						2	1				
7B-P	Internet Of Things Lab	CO1	Operate on IOT, Arduino/ Raspberry Pi, and also able to install software setup of Arduino/Raspberry Pi.	2			3						2	1				
		CO2	List of different operating systems for Raspberry Pi / Beagle board.	3			3						2	1				
		CO3	Identify the different supporting OS platforms of Raspberry-Pi/ Beagle board	3			3						2	1				
		CO4	Use Raspberry Pi/ Beagle board circuit with external resources	2			3						2	1				
6C	Mobile Application Development	CO1	Identify basic terms ,tools and software related to android systems	3			1						2	1				
		CO2	Describe components of IDE, understand features of android development tools	3			2						2	1				
		CO3	Describe the layouts and controls	2			3						2	1				
		CO4	Explain the significance of displays using the given view	2			2						2	1				
		CO5	Explain the features of services and able to publish android Application	2			2						2	1				
		CO6	Develop interesting Android applications using MIT App Inventor	2			3						2	1				
6C_P	Mobile Application Development Lab	CO1	Identify the android platform	3			2						2	1				
		CO2	Design and implementation of various mobile applications	3			3						2	1				
7C	Pc Hardware And Networking	CO1	Identify the computer peripherals, software and hardware devices	3			1						3	3				
		CO2	Describe the basics of networks and networking tools	3			2						3	3				
		CO3	Describe the Network Addressing and sub-netting	3			3						3	2				
		CO4	Explain the Networks protocols and management	3			2						3	1				
		CO5	Identifiy Basic Network administrator roles	2			2						2	1				
7C-P	Pc Hardware And Networking Lab	CO1	Operate on Basic of Computer assembling and trouble shooting.	3			3						3	3				
		CO2	Operate on Computer networking and trouble shooting	3			3						3	1				