BACHELORS OF COMPUTER APPLICATIONS

Program Outcomes (PO):

1) To provide through understanding of nature,scope and applicationof Computer and computer languages.
2) To develop interdisciplinary approach among the students.

Program Specific Outcome (PSO):

After the completion of the course a student is able to
1) To pursue further studies to get specialization in computer Science and Application,economics,mathematics,business Administration
2) To pursue the career in corporate sector can opt for MBA.
3) To work in public sector undertakings and government organization
4) for teaching in school .
5) to work in the IT sector as programmer,system engineer,software tester,junior programmer,web developer,system administrator,software developer etc.

Course outcomes(CO)

BCA Sem 1

AEC11 : Environmental Science

Objectives

1) To Help the social groups and individuals to acquire knowledge of pollution and environmental degradation.
2) To help social groups and individuals to acquire knowledge of the environment beyond the immediate environment including distant environment.
3) To help social groups and individuals to acquire a set of values for environmental protection
4)To help social groups and individuals to develop skills required for making discriminations in form,shape,sound,touch,habits and habitats. Further,to develop ability to draw unbiased inferences and conclusions.
50 To provide social groups and individuals with an opoortunity to be actively involved at all levels in environmental decision making

Outcomes

1) The types of Environmenatal issues on which decisions might be made.
2) The physical setting of the prospective environmental decision,including its spatial scale.
3) The types of social groups and individuals who might interact in a process leading up to an environmental decision
4) The time frame within which the decision must be made.

C12 + CC12L : Programming in C (Theory and Lab)

Objectives

1. The course is designed to provide complete knowledge of C language.
2. To help students understand the medium of communication between users and the machine.
3. To develop logic in students which will help them to create programs and applications in C.
4. To make students understand the concept of compilation and execution of a program.
5. To help students understand the basic concept of the various branching and looping constructs for efficient programming
6. To develop understanding of arrays, strings, pointers and memory allocation for real life applications.
7. To help students differentiate between a procedural and object oriented language.

Outcomes

1. By learning the concept of C language, students will be able to develop real life

applications in C
2. After learning the basic programming constructs, they can easily switch over to any other programming language in future.
3. After learning the language they will have a clearer understanding of the working of system software like compilers, loaders and linkers.
4. To provide confidence in students to switch to new object oriented languages after understanding the drawbacks of procedural language.
5. To get hands on practice on developing small working applications.
CC13 + CC13T : Digital Electronics (Theory and Tutorial)
Objectives
1. To understand the concept of fundamentals of computers, like : software/hardware/firmware, etc, and the generations of computers and computer languages.
2. To provide the concept of number system and their conversions from one system to the other.
3. To give a clear idea of the working principle of the Arithmetic and Logic unit of the computer processor.
4. To help students identify the difference in evaluation of arithmetic operations by a human and a computer.
5. To understand the basic building blocks of a computer system (logic gate)
6. To give the realization of the different circuits operating in the computer system.
Outcomes
1. Students will be able to design small digital circuits in the Lab and will be able to clearly understand their working principle.
2. Students can assemble and disassemble a computer after learning about its various components.
3. Students can make a small digital project using the various ICs.
4. Students will be able to identify the different hardware parts and they can also resolve minor technical issues.
5. Students will have knowledge on the different software related issues, so they will be able to fix it.
GE14 + GE14T : Mass Communication and Journalism (Theory and Tutorial)
Objectives
1. To understand how the freedom of press runs in the biggest democratic nation
2. To help the students to understand the constitution of India in a wider prospective
3. To help the students how media today stands as the most powerful weapon in a democratic institute.
4. To make the students aware of the democratic rights and they too can become a strong tool of communication.
Outcomes:
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BCA Sem2
AEC21 : MIL Communication
Objectives:
1. To introduce students to the theory, fundamentals and tools of communication and to develop in them vital communication skills which should be integral to personal, social and professional interactions.
2. To make students understand that one of the important links between human beings and an important thread that binds society together is the ability to share thoughts, emotions and ideas, which can be done through verbal communication.

3. Recognition of social and cultural pluralities to assist in rapid globalization
4. Nurturing growth of various speaking skills, such as personal communication, social interactions and professional communication (like: personal interviews, group discussions)
5. Develop writing skills like report writing, note taking, etc

Outcomes :

1. Students will be able to overcome the different communication barriers and will be more confident in dealing with people.
2. After studying this course students will find a difference in their personal and professional interaction.
3. They will be able to learn the art of creative writing after development of their writing skills.
4. Better communication skills will help in the personality development of students
5. Students will regular practice on group discussions will be benefited when facing competitive exams.

CC22 + CC22L : Programming in Java (Theory and Lab)

Objectives

1. The course is designed to provide complete knowledge of Object oriented languages, like, Java.
2. To help students understand the concept of a virtual machine.
3. To develop logic in students which will help them to create programs and applications in Java.
4. To make students understand the concept of compilation, interpretation and execution of a program.
5. To help students understand the basic concept of the various branching and looping constructs for efficient programming.
6. To develop understanding of the concept of inheritance, polymorphism, packages, metadata and interfaces.
7. To help students develop network and database related programs.
8. To design graphics based programs.

Outcomes

1. Students will be able to develop real life applications in Java.
2. After learning the language they will have a clearer understanding of the working of system software like compilers, interpreters, loaders and linkers.
3. To get hands on practice on developing working applications.
4. Students will be able to design live software which would be counted in their professional experience.
5. After getting the fundamental knowledge on a powerful language like java, students can further explore its functionalities.

CC23 + CC23T : Computer System Architecture (Theory and Lab)

Objectives

1. To understand the internal architecture of a computer.
2. To give a clear idea of the working principle of the Control unit and the Arithmetic and Logic unit of the computer.
3. To help students understand the operations carried out by a computer system and the circuits involved in performing those operations.
4. To understand the basic building blocks of a computer system and their interconnections.
5. To understand to the process of input and output operations that takes place in a computer.

6. To have a clear understanding of the memory units of a computer and their categorization.

Outcomes

1. Students will be able to identify all the hardware components present in a computer and will be able to assemble and disassemble a computer.
2. Students will be able to design small digital circuits in the Lab and will be able to clearly understand their working principle.
3. Students will be able to identify the different hardware parts and they can also resolve minor technical issues.
4. Students will be able to perform arithmetic operations in binary system and understand the exact evaluation procedure that takes place in a computer.

GE24 : General Elective 2 (Mass Communication and Journalism)

Objectives:

1) To install in the Mass communication students the ability to respect deadline and work under constant pressure.
2) to train and encourage the Indian Mass communicators to be effective communicators by being able to think quickly,research creatively and write or broadcast concisely to the mass audience.
3) For daily newscasts or writing a speech for the company CEO or Advertising or public Relations copy to sell or promote a product to the masses.
4) to Produce the Indian Mass communicators who will continue to protect the basic principles of the peoples right to know as the fourth branch of government.

Outcomes:

1)The students should be able to differentiate “soft news” from “ hard news” truth from

falsehood,responsible journalism from irresponsible journalism.
2) It is expected that the students should be equipped enough to establish enough to establish his/her own newspaper,magazines,public relations and advertising agency or even his/her own radio and/or television stations.
3) Students can work in the print media as well as broadcasts industry.
4) Students could be employed in the advertising.
5) Students can work public relations, photojournalism and the public sector as press secretaries or media relations personnel for public office holders as well as press attached of the diplomatic corps in india.

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BCA Sem 3

CC31 + CC31L: Data Structures (Theory and Practical)

Objectives

1. To understand the concept of how data is stored in Computers and how they are retrieved.
2. To understand the categorization of data structures into linear and non linear.
3. To understand the use of recursion and recursive functions.
4. To help design algorithms that can search and sort data in a list.
5. To help design algorithms which are presented in a form, which is machine and language independent.
6. Use of appropriate data structure enables a computer system to perform its task more efficiently by influencing the ability of computer to store and retrieve data from any location in its memory.
7. To understand basic concept about stacks,queues,lists,trees and graphs

8. To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures.

Outcomes:

1.Ability to analyze algorithms and algorithm correctness.
2. Ability to summarize searching and sorting technique.
3. Ability to describe stack,queue and linked list operation
4. Ability to have knowledge of tree and graphs concept.

CC32 + CC32L: Operating System (Theory and Practical)

Objectives:

1. To understand the fundamental concepts and techniques of operating systems.
2. To study the concepts in process management and concurrency control mechanisms.
3. To understand the concept of efficient memory managements and related problems.
4. To understand the concept of Synchronization among processes.
5. To help study file management and storage structures used by the operating system.

Outcomes:

1. An ability to understand basic concepts about operating system.
2. An ability to describe process management, scheduling and concurrency control mechanism.
3. An ability to analyze memory management and deadlocks.
4. An ability to compare various file systems and its operating systems example.
5. Ability to implement shell scripting on UNIX Operating System.

CC33 + CC33 (T): Discrete Structures (Theory and Tutorial)

Objectives

1. Enable students to gain knowledge on the different system software and their collaborative functioning in the system.
2. Enable the students to understand and create mathematical arguments and solving them with logical skill
3. Enable the students to learn number theory, which is applied in data security and networking
4. Enable the students to learn set theory, graph relation, functions which are used in cryptography and data structures.
5. Enable the students to learn the basic concepts of graph theory.

Outcomes

1. Ability to apply logic and mathematical reasoning in practical applications like computer programming.
2. Ability to employ number theory concepts in cryptography and security.
3. Ability to differentiate set theory concept in designing efficient algorithms both in space and time.
4. Ability to solve various methods of solving recurrence relations.
5. Ability to solve various graph theory problems.

GE34+Ge34T:Maths(Theory+Tutorial)

Objective:

1) To help in expression of abstract ideas.

2) To enable the students to use in the solution of some of the stiff problems in arithmetic equation and factorization .

Outcomes:

1) This inculcates in students the power of accurate analysis.

SEC35 + SEC35L : Website design with HTML and PHP (Theory and Practical)

Objectives

1. To help students understand the platform independence of PHP and its wide

functionalities
2. To provide a concept of web designing and its hosting.
3. To train the students in becoming proficient PHP or MySQL web developers.
4. To help students have a basic understanding of web technology and be able to architect, write, debug and complete web applications.
5. To gain PHP programming skills needed to successfully build interactive, data driven sites.
Outcomes
1. Every student develops a project using PHP and feels more comfortable doing the same.
2. Students will be able to implement interactive and responsive web pages using HTML, CSS and PHP.
3. Students will be able to describe and differentiate different wave extensions and web services.
4. Students will be able to build dynamic websites using server side PHP programming and database connectivity.

BCA Sem 4

CC41 + CC41L : Computer Networks (Theory and Practical)
Objectives
1. To help students learn the basic terminologies related to Computer Networking and enumerate the layers of OSI and TCP/IP model.
2. To acquire knowledge of application layer and presentation layer paradigms and protocols.
3. To gain core knowledge of network layer, routing protocols, IP addressing and different switching techniques.
4. To help students understand data link layer concepts, design issues and protocols.
5. To help students read the fundamentals and basics of physical layer and will apply them in real time applications.
Outcomes
1. Students will be able to describe the function of each layer in OSI and TCP/IP model.
2. Students will be able to classify the routing protocols and analyze how to assign the IP addresses for the given network.
3. Students will be able to explain the types of transmission media with real time applications.
4. Students will be able to explain the function of application layer and presentation layer paradigms and protocols.
5. Students will be able to apply network security basics, analyze different attacks on networks and evaluate the performance of firewalls and security protocols.
CC42 + CC42L : Software Engineering (Theory and practical)
Objectives
1. To help students learn the nature of software development and software lifecycle process models.
2. To have a clear understanding of the concepts and principles of software design and user centric approach and principles of effective user interfaces.
3. To know the basics of testing and understanding the concepts of software quality assurance and software configuration management process.
4. To understand the needs of project management and project management life cycle.
5. To understand project scheduling concepts and risk management associated to various types of projects.
6. To explain methods of capturing, specifying, visualizing and analyzing software

requirements.
Outcomes
1. Students will be able to define various software application domains and remember different process models used in software development.
2. Students will be able to explain needs for software specification and also to classify different types of software requirements and their gathering techniques.
3. Students will be able to classify different testing strategies and tactics and compare them.
4. Students will be able to convert the requirements model into the design model and demonstrate use of software and user interface design principles.
5. Students will be able to generate project schedule and can construct, design and develop network diagrams for different types of projects.
6. Students will be able to investigate the results of bugs and analyze the principles in software testing to prevent and remove bugs

CC43 + CC43L : Database Management System (Theory and Practical)
Objectives
1. To enable students to learn to describe a sound introduction to the discipline of database management system.
2. To give a good formal foundation on the relational model of data and usage of relational algebra.
3. To introduce the concept of basic SQL as a universal database language.
4. To enhance knowledge to advanced SQL topics like embedded SQL,procedures connectivity through JDBC.
5. Two demonstrate the principals behind systematic Database design approaches by covering conceptual design, logical design through normalization.
6. To provide an overview of physical design of a database system by discussing Database Indexing Techniques and storage techniques.

Outcomes:
1. Students will be able to explain the features of Database Management System and Relational Database.
2. Students will be able to design conceptual models of a database using ER Modeling for real life applications and also construct queries in Relational Algebra.
3. Students will be able to create and populate a Relational Database Management System for a real life application with constrants and keys using SQL.
4. Students will be able to analyze the existing design of a database schema and apply concepts of normalization to design an Optimal Database.
5. Students will be able to build indexing mechanisms for efficient retrival of information from a database.

GE 44: General Elective 4 (Mathematics) [Theory and tutorials]
Objective:
1. Students will learn the concept of Set Theory and Relations.
2. The concept of functions and define the recursive functions.
3. To give the concept of Laplace and inverse Laplace transform.
4. To give the concept of Permutation and Combinations.
5. To give the concept of variable and also identify the mapping.

Outcome:
1. Student will be able to apply the Set theory and Relation concepts.
2. Student will be able to apply the functions and define the recursive functions.
3. Student will be able to apply Laplace and inverse Laplace transform to different applications.

4. Student will be able to identify the permutations and combinations.
5. Student will be able to define variable and also identify the mappings.

SEC 45 TL :Anroid Programming(Theory+Lab)

Objective:

1. Students will learn to introduce android platform and its architecture.
2. To learn activity creation and android User Interface (UI) designing.
3. To be familiarized with intent, broadcast receivers and internet services.
4. To integrate multimedia, camera and location based services in android applications.
5. To explore Mobile Security issues.
6. To work with SQLite database and content providers.

Outcomes:

1. Students will be able to describe anroid platforms, architecture and features.
2. .Students will be able to design user interface and develop activity for anroid application.
3. Students will be able to design and implement Database application and content providers.
4. Students will be able to use multimedia, camera and location based service in anroid application.
5. Students will be able to discuss various security issues in anroid platform.