DEPARTMENT OF COMPUTER SCIENCE WITH ARTIFICIAL INTELLIGENCE

Programme: B.Sc., Computer Science with Artificial Intelligence

PO No.	Programme Outcomes Upon completion of the B.Sc., Degree Programme the graduate will be able to
PO-1	Understand the impact of professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of artificial intelligence for sustainable development
PO-2	Excel as professionals with analytical and critical thinking by understanding, analyzing and designing solutions of domain-relevant problems with an ethical approach to contribute towards society upliftment
PO-3	Groom themselves as industry ready professionals and effective researchers with sense of social responsibilities
PO-4	Provide solutions for real-world problems through basic and applied research leading to innovations in AI related interdisciplinary areas
PO-5	Identify and address their educational needs in a changing world in ways sufficient to maintain the competence and to allow them to contribute to the advancement of knowledge

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	To apply the knowledge of artificial intelligence in competitive research and to develop innovative products to meet the societal needs thereby evolving as an eminent researcher and entrepreneur
PSO-2	To contribute towards the knowledge base through significant research activities in recent trends by understanding the core principles and concepts of artificial intelligence
PSO-3	To acquire programming efficiency by designing algorithms and applying standard practices in software project development to deliver quality software products meeting the demands of industry
PSO-4	To apply programming skills in the discipline of artificial intelligence for providing efficient and cost-effective solutions in engineering and environmental problems
PSO-5	To develop critical thinking ability to analyze different algorithms which helps to provide various innovative ideas to solve societal problems

Course Title	STRUCTURED PROGRAMMING IN C	
CODE	**22AIUC101**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Demonstrate the basic concepts of Algorithms to solve problems	K2
CO-2	Define the fundamentals of C Programming	K1
CO-3	Develop programs using the basic elements like control statements, Arrays and Strings	K4
CO-4	Develop C programs using Array Data structure, Functions, Structure, Union and Pointers to solve complex problems	K3
CO-5	Apply File concepts to data storage and manipulation	K3

Course Title	STRUCTURED PROGRAMMING IN C LAB	
CODE	**22AIUCP01**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Demonstrate branching and looping constructs	K2
CO-2	Distinguish between Iteration and Recursion	K4
CO-3	Construct C programs using arrays and functions	K3
CO-4	Make use of Pointers in C Programs	K3
CO-5	Build C programs for Biological Problems	K3

Course Title	APPLIED MATHEMATICS	
CODE	**22AIUA101/ 22CYUA101**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Identify and Apply the matrix operations for solving any matrix related problems	K1, K2&K3
CO-2	Determine and apply appropriate numerical methods for solving System of Linear Equations	K2, K3&K4
CO-3	Compare and distinguish the use of differentiation / integration methods and plan for solving scientific problems.	K3, K4
CO-4	Apply appropriate method to find the initial basic feasible solution and solve the transportation and assignment problems towards optimality	K3
CO-5	Exercise and experiment the network construction by employing PERT for project planning and CPM for scheduling	K2, K3

Course Title	DIGITAL FUNDAMENTALS AND ARCHITECTURE	
CODE	**22CSUC202 / 2CAUC202/22AIUC202**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Acquire knowledge on number systems and Boolean algebra	K2
CO-2	Interpret logic functions, circuits, truth tables, and Boolean algebra expressions for logic gates	K3
CO-3	Simplify the Boolean expressions and circuits using Karnaugh Maps	K3
CO-4	Outline the fundamentals of combinational logic design, Flip-Flop, computer buses, I/O Peripherals and various data transfer echniques	K2
CO-5	Outline the concept of Memory Organization and mapping Techniques	K2

Course Title	PROGRAMMING IN JAVA	
CODE	22AIUC203	
CO No.	Course Outcomes	Knowledge Level
CO-1	Demonstrate the concept of object-oriented programming through Java	K1, K2
CO-2	Illustrate the syntax and semantics of Java	K2
CO-3	Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence for developing java program	K3
CO-4	Develop java programs for applets and graphics programming	K3
CO-5	Understand the fundamental concepts of AWT controls, layouts and events	K1, K2

Course Title	PROGRAMMING IN JAVA LAB	
CODE	22AIUCP02	
CO No.	Course Outcomes	Knowledge Level
CO-1	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping	K2
CO-2	Develop Java programs using Strings, Interfaces and Packages	K3
CO-3	Construct Java programs using Multithreaded Programming and Exception Handling	K3
CO-4	Build Java programs for Applets and Graphics programming	K3
CO-5	Create data files and Design a page using AWT controls & MouseEvents in Java programming	K4

Course Title	COMPUTATIONAL STATISTICS	
CODE	**22AIUA202/22CYUA202**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Analyze and infer the type of data for using measures of Central Tendency.	K1, K2&K3
CO-2	Analyze and compare two or more different data sets using Measures of Dispersion.	K2, K3&K4
CO-3	Understand moments as a convenient and unifying method for summarizing several descriptive statistical measures.	K3, K4
CO-4	Recognize and apply the correlation/regression methods for finding the association between the dependent and independent variables.	K2, K3&K4
CO-5	Analyze the expected outcomes of given data using discrete uniform distribution, Binomial Distribution and Poison Distribution.	K2, K3