BANSAL INSTITUTE OF RESEARCH & TECHNOLOGY, BHOPAL
Kokta Anand Nagar,Bhopal

DEPARTMENTOFCOMPUTERSCIENCE&ENGINEERING

COURSE OUT COMES (COs)

Semester: V

Course Name: Theory of Computation	**Course Code: CS-501**
Students will be able to:	
CO1:	Apply the basic concepts of switching and finite automata theory and languages.
CO2:	Construct abstract models of computing and check their power to recognize languages.
CO3:	Analyze grammar, its types, simplification, and normal forms.
CO4:	Illustrate the formal mathematical methods used to prove the properties of languages, grammars, and automata.
CO5:	Evaluate an overview of how automata theory, languages, and computation are applicable in engineering applications.

Course Name: Database Management Systems	**Course Code: CS-502**
Students will be able to:	
CO1:	Summarize the basic concepts of databases, integrity constraints, and database modeling.
CO2:	Construct relational algebra operations and SQL queries.
CO3:	Design a non-redundant and consistent database using normalization.
CO4:	Apply the transaction processing concepts and concurrency control to a relational database system.
CO5:	Construct various indexing techniques and apply them to the database.

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Course Name: Departmental Elective-I (Cyber Security)	**Course Code: CS-503(C)**
Students will be able to:	
CO1:	Understand various types of cybercrime and cyber attacks.
CO2:	Analyze social and intellectual property issues emerging from cyberspace.
CO3:	Evaluate the legal implications of IT Act offences, including monetary penalties and jurisdictional issues.
CO4:	Judge the knowledge of the Information Technology Act, 2000, and the legal framework of the right to privacy, data security, and data protection.
CO5:	Adapt to society regarding the various cybercrimes and ways to tackle them.

Course Name: Open Elective-I Internet and Web Technology	**Course Code: CS-504(A)**
Students will be able to:	
CO1:	List the various HTML tags and use them to develop user-friendly web pages.
CO2:	Define CSS with its types and use them to provide styles to web pages at various levels.
CO3:	Develop modern web pages using HTML and CSS features with different layouts as per the needs of applications.
CO4:	Use server-side scripting with PHP to generate web pages dynamically using database connectivity.
CO5:	Develop modern web applications by integrating client-side and server-side technologies and applying web design fundamentals to create functional and user-oriented applications.

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Course Name: Lab(Linux)	**Course Code: CS-505**
Students will be able to:	
CO1:	Apply basic Linux commands to perform file management, user management, and system navigation effectively.
CO2:	Analyze file permissions and process management techniques to control access and multitasking in a Linux environment.
CO3:	Implement shell scripts to automate routine administrative and computational tasks.
CO4:	Configure system-level components such as network settings, run levels, and boot loaders to manage system operations.
CO5:	Evaluate system performance and security by using advanced administrative tools and log analysis in Linux.

Course Name: Lab (Python)	**Course Code: CS-506**
Students will be able to:	
CO1:	Use the fundamentals of Python syntax and semantics, and fluently utilize Python control flow statements and functions.
CO2:	Demonstrate Python programs using the list, dictionary, tuple, and set data structures.
CO3:	Explain the object-oriented concepts and the built-in objects of Python.
CO4:	Develop a project using object-oriented programming concepts such as encapsulation, inheritance, and polymorphism.

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Course Name: Evaluation of Internship II	**Course Code:CS-507**
Students will be able to:	
CO1:	Express the application of knowledge and skill sets acquired from the course and workplace in the assigned job function.
CO2:	Solve real-life challenges in the workplace by analyzing the work environment and conditions and selecting appropriate skill sets acquired from the program.
CO3:	Discuss and collaborate effectively and appropriately with different professionals in the work environment through written and oral means.
CO4:	Express professional ethics by displaying a positive disposition during the internship.

Course Name: Minor Project I	**Course Code: CS-508**
Students will be able to:	
CO1:	Practice the acquired knowledge within the chosen area of technology for project development.
CO2:	Identify, discuss, and justify the technical aspects of the chosen project with a comprehensive and systematic approach.
CO3:	Reproduce, improve, and refine the technical aspects of engineering projects.
CO4:	Communicate and report effectively on project-related activities and findings.

Approved By:-
Head of Department