



## BCA PROGRAMME OUTCOMES

### Programme Outcomes (POs)

POs	Programme Outcomes
PO1	Apply the knowledge of mathematics, statistics, and computer science to the solution of complex problems.
PO2	Identify, formulate, review research literature, and analyze problems reaching validated conclusions.
PO3	Design solutions for difficult problems and design software that meet the specified needs with appropriate consideration for the society.
PO4	Create and apply appropriate techniques for requirement collection, development and testing using tools.
PO5	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development
PO6	Familiarity and practical competence with a broad range of programming language and open source platforms.
PO7	An ability to apply mathematical methodologies to solve computation task, model real world problem using appropriate data structure and suitable algorithm.
PO8	An ability to understand the structure and development methodologies of software systems.
PO9	Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO10	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes



## COURSE OUTCOMES (COS)

### SEMESTER I

COURSE CODE	PAPER NAME	CREDITS	COURSE OUTCOME
BCA1B01	Computer Fundamentals & HTML	3	<b>CO1-</b> To equip the students with fundamentals of Computer
			<b>CO2-</b> To learn the basics of Computer organization
			<b>CO3-</b> To equip the students to write algorithm and draw flow chart for solving simple problems
			<b>CO4-</b> To learn the basics of Internet and webpage design

### SEMESTER II

COURSE CODE	PAPER NAME	CREDITS	COURSE OUTCOME
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BCA2B02	Problem Solving using C	3	<b>CO1-</b> To equip the students with fundamental principles of Problem Solving aspects.
			<b>CO2-</b> To learn the concept of programming
			<b>CO3-</b> To study C language
			<b>CO4-</b> To equip the students to write programs for solving simple computing problems
BCA2B03	Programming Laboratory I: HTML and Programming in C	4	<b>CO1-</b> To make the students learn web designing
			<b>CO2-</b> To make the students learn programming environments
			<b>CO3-</b> To practice procedural programming concepts.
			<b>CO4-</b> To make the students equipped to solve mathematical or scientific problem using C.

**SEMESTER III**

COURSE CODE	PAPER NAME	CREDITS	COURSE OUTCOME
A11	Python Programming	4	<b>CO1-</b> Understand various statements, datatypes and functions in Python.
			<b>CO2-</b> Develop programs in Python programming language



			<b>CO3-</b> Understand the basics of Object Oriented Programming using Python
BCA3B04	Data Structures using C	3	<b>CO1-</b> To understand the concept of data structures
			<b>CO2-</b> To make the students aware of various data structures
			<b>CO3-</b> To equip the students to implement fundamental data structures
BCA3C06	Theory of Computation	3	<b>CO1-</b> To get general introduction of theory of computer science
			<b>CO2-</b> To get a general understanding of different languages-grammar and automata

### SEMESTER IV

COURSE CODE	PAPER NAME	CREDITS	COURSE OUTCOME
A 13	Data Communication and Optical Fibers	4	<b>CO1-</b> To learn about intricacies in communication technology
A 14	Microprocessors Architecture and Programming	4	<b>CO1-</b> To understand internals of Microprocessor.
			<b>CO2-</b> To learn architecture of 8085 Microprocessor



			<b>CO3-</b> To learn instruction set of 8085 Microprocessor
			<b>CO4-</b> To learn how to program a Microprocessor
BCA4B05	Database Management System and RDBMS	3	<b>CO1-</b> To learn the basic principles of database and database design
			<b>CO2-</b> To learn the basics of RDBMS
			<b>CO3-</b> To learn the concepts of database manipulation SQL
			<b>CO4-</b> To study PL/SQL language
BCA4B06-	Programming Laboratory II:Data Structures and RDBMS	4	<b>CO1-</b> To make the students equipped to solve mathematical or scientific problems using C
			<b>CO2-</b> To learn how to implement various data structures.
			<b>CO3-</b> To provide opportunity to students to use data structures to solve real life problem
BCA4C07	E-Commerce	3	<b>CO1-</b> To get a general introduction of the Electronic Commerce framework.
			<b>CO2-</b> To get a general understanding on the various electronic payment system.
			<b>CO3-</b> To get a general understanding on the Internal information systems.



			<b>CO4-</b> To get a general understanding on the new age information
BCA4C08	Computer Graphics	3	<b>CO1-</b> To learn the basics of Computer Graphics

### SEMESTER V

COURSE CODE	PAPER NAME	CRE DITS	COURSE OUTCOME
BCA5B07	Computer Organization and Architecture	3	<b>CO1-</b> To learn logic gates, combinational circuits and sequential circuits □
			<b>CO2-</b> To learn basics of computer organization and architecture
BCA5B08	Java Programming	3	<b>CO1-</b> To review on concept of OOP.
			<b>CO2-</b> To learn Java Programming Environments.
			<b>CO3-</b> To practice programming in Java.
BCA5B09	Web Programming using PHP	3	<b>CO1-</b> To review on concept of OOP.
			<b>CO2-</b> To learn PHP Programming Environments.
			<b>CO3-</b> To practice programming in PHP.



			<b>CO4-</b> To learn GUI Application development in PHP
BCA5B10	Principles of Software Engineering	3	<b>CO1-</b> To learn engineering practices in Software development.
			<b>CO2-</b> To learn various software development methodologies and practices.
			<b>CO3-</b> To learn and study various Evaluation methods in Software Development
BCA5D01	<b>Open Course-</b> Introduction to Computers and Office Automation	3	<b>CO1-</b> To learn Office Automation.

**SEMESTER VI**

COURSE CODE	PAPER NAME	CRE DITS	COURSE OUTCOME
BCA6B11	Android Programming	3	<b>CO1-</b> To have a review on concept of Android programming.
			<b>CO2-</b> To learn Android Programming Environments
			<b>CO3-</b> To practice programming in Android
			<b>CO4 -</b> To learn GUI Application development in Android platform with XML



BCA6B12	Operating Systems	3	<b>CO1-</b> To learn objectives & functions of Operating Systems.
			<b>CO2-</b> To understand processes and its life cycle
			<b>CO3-</b> To learn and understand various Memory and Scheduling Algorithms.
			<b>CO4-</b> To have an overall idea about the latest developments in Operating Systems
BCA6B13	Computer Networks	3	<b>CO1-</b> To learn about transmissions in Computer Networks.
			<b>CO2-</b> To learn various Protocols used in Communication.
			<b>CO3-</b> To have a general idea on Network Administration
BCA6B14	Programming Laboratory III: Java and PHP Programming	4	<b>CO1-</b> To practice Java programming.
			<b>CO2-</b> To practice client side and server side scripting.
			<b>CO3-</b> To practice PHP Programming.
			<b>CO4-</b> To practice developing dynamic websites.
			<b>CO5-</b> To practice how to interact with databases through PHP





BCA6B15	Programming Laboratory IV: Android and Linux Shell Programming	4	<b>CO1-</b> To practice Android programming.
			<b>CO2-</b> To practice user interface applications.
			<b>CO4-</b> To develop mobile application.
			<b>CO5-</b> To practice shell programming.
BCA6B16A	ELECTIVE -System Software	3	<b>CO1-</b> To build fundamental knowledge in system software.
			<b>CO2-</b> To learn functions of various system software.
			<b>CO3-</b> To learn specifically learn compilation process of a program
BCA6B17	Industrial Visit and Project Work	2	<b>CO1-</b> To provide practical knowledge on software development process