

SYLLABUS PLAN: 1st SEMESTER 2025-26**Dr. VINOD KUMAR COMPUTER SCIENCE****B.C.A – I: Foundations of Computer Science****Code: 24 L4.5-BCA-102**

Week	Topics
01.08.2025 –09.08.2025	• Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers
11.08.2025 –16.08.2025	• Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields
18.08.2025 –23.08.2025	• Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software.
25.08.2025 –30.08.2025	• Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy.
01.09.2025 –06.09.2025	• Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.
08.09.2025 –13.09.2025	• I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball
15.09.2025 –20.09.2025	• Joystick, magnetic stripes, scanner, digital camera, and microphone Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot-matrix. Plotter.
22.09.2025 –27.09.2025	• Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar,
29.09.2025 –04.10.2025	• Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.
06.10.2025 –11.10.2025	• The Internet: Introduction to networks and internet, history, Internet,
13.10.2025 –18.10.2025	• Intranet & Extranet, Working of Internet, Modes of Connecting to Internet • Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords
27.10.2025 –01.11.2025	• E-mail addresses, message components, message composition, mailer features. Browsers and search engines.
03.11.2025 –08.11.2025	• Threats: Physical & non-physical threats, Virus, Worm, Trojan, Spyware, Keyloggers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking.

10.11.2025 -15.11.2025	• Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation,
17.11.2025 –22.11.2025	• Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.
24.11.2025 –29.11.2025	• Revision of Unit-I • Revision of Unit-II
01.12.2025 –02.12.2025	• Revision of Unit-III • Revision of Unit –IV
<i>University examination from 02.12.2025</i>	

SYLLABUS PLAN: 5th SEMESTER 2025-26
Dr. VINOD KUMAR COMPUTER SCIENCE
B.C.A – III: Visual Basic Code: BCA-304

Week	Topics
01.08.2025 –09.08.2025	• Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and event driven programming languages. • The VB environment: Menu bar.
11.08.2025 –16.08.2025	• Toolbar, Project explorer • Toolbox
18.08.2025 –23.08.2025	• Properties window, Form designer, Form layout, Immediate window • Visual Development and Event Driven programming
25.08.2025 –30.08.2025	• Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types
01.09.2025 –06.09.2025	• Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. • Operators: Arithmetic, Relational & Logical operators.
08.09.2025 –13.09.2025	• I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement.
15.09.2025 –20.09.2025	• Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case.
22.09.2025 –27.09.2025	• Looping statements: Do-loops, For-next, While-wend, Exit statement • Nested control structures.
29.09.2025 –04.10.2025	• Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays • Static & dynamic arrays, Arrays of array.
06.10.2025 –11.10.2025	• Collections: Adding, Removing, Counting, Returning items in a collection • Processing a collection
13.10.2025 –18.10.2025	• Programming with VB: Procedures: General & event procedures,
27.10.2025 –01.11.2025	• Subroutines, Functions, Calling procedures, Arguments- passing mechanisms
03.11.2025 –08.11.2025	• Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays.

10.11.2025 -15.11.2025	Working with forms and menus : Adding multiple forms in VB, Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus,
17.11.2025 -22.11.2025	- Activate & deactivate events, Form-load event, menu designing in VB - Simple programs in VB.
24.11.2025 -29.11.2025	- Revision of Unit-I - Revision of Unit-II
01.12.2025 -02.12.2025	- Revision of Unit-III - Revision of Unit –IV
<i>University examination from 02.12.2025</i>	

SYLLABUS PLAN: 3rd SEMESTER 2025-26
Dr. VINOD KUMAR COMPUTER SCIENCE
B.C.A – II: Java OOP Foundations Code: 24 L5.0-BCA-301

Week	Topics
01.08.2025 –09.08.2025	Object Oriented Programming and Java Fundamentals: Structure of Java programs
11.08.2025 –16.08.2025	Classes and Objects, Data types, Type Casting, Looping Constructs
18.08.2025 –23.08.2025	Interfaces: Interface basics; Defining, implementing and extending interfaces
25.08.2025 –30.08.2025	Implementing multiple inheritance using interfaces Packages: Basics of packages
01.09.2025 –06.09.2025	Creating and accessing packages, System packages, Creating user defined packages
08.09.2025 –13.09.2025	Exception handling using the main keywords of exception handling: try, catch, throw, throws and finally
15.09.2025 –20.09.2025	Nested try, multiple catch statements, creating user defined exceptions
22.09.2025 –27.09.2025	File Handling Byte Stream, Character Stream
29.09.2025 –04.10.2025	File I/O Basics, File Operations
06.10.2025 –11.10.2025	AWT and Event Handling: The AWT class hierarchy
13.10.2025 –18.10.2025	Events, Event sources, Event classes, Event Listeners
27.10.2025 –01.11.2025	Relationship between Event sources and Listeners
03.11.2025 –08.11.2025	Delegation event model
10.11.2025 –15.11.2025	Creating GUI applications using AWT
17.11.2025 –22.11.2025	Revision of Unit-I, Revision of Unit-II
24.11.2025 –29.11.2025	Revision of Unit-III, Revision of Unit –IV
University examination from 02.12.2025	