SYLLABUS PLAN: 4th SEMESTER 2021-22

VINOD KUMAR COMPUTER SCIENCE

B.C.A –II: Web Designing **Code: BCA-206**

Week	Topics
21.03.22 – 26.03.22	• Introduction to Internet and World Wide Web; Evolution and History of World Wide Web;
28.03.22 – 02.04.22	• Basic features; Web Browsers; Web Servers; Hypertext Transfer Protocol,
04.04.22 – 09.04.22	• Overview of TCP/IP and its services; URLs;
11.04.22 – 16.04.22	• Searching and Web-Casting Techniques; Search Engines and Search Tools;
18.04.22 – 23.04.22	• Web Publishing: Hosting your Site; Internet Service Provider; Web terminologies,
25.04.22 – 30.04.22	• Phases of Planning and designing your Web Site; Steps for developing your Site;
02.05.22 – 07.05.22	• Choosing the contents; Home Page; Domain Names, Front page views,
09.05.22 - 14.05.22	• Adding pictures, Links, Backgrounds, Relating Front Page to DHTML.
16.05.22 – 21.05.22	• Creating a Website and the Markup Languages (HTML, DHTML);
23.05.22 – 28.05.22	• Web Development: Introduction to HTML; Hypertext and HTML; HTML Document • Features; HTML command Tags; Creating Links; Headers;

30.05.22 – 04.06.22	• Text styles; Text Structuring; • Text colors and Background; Formatting text; Page layouts;
06.06.22 – 11.06.22	• Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; • Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes;
13.06.22 – 18.06.22	• DHTML: Dynamic HTML, Features of DHTML,CSSP(cascading style sheet positioning) and JSSS(JavaScript assisted style sheet),
20.0622 – 25.06.22	• Layers of Netscape, The ID attributes, DHTML events.
27.06.22 – 02.07.22	• Revision

SYLLABUS PLAN: 6th SEMESTER 2021-22

VINOD KUMAR COMPUTER SCIENCE

B.C.A – III: Object Technologies & Programming using Java

Code: BCA-307

Week	Topics
21.03.22 – 26.03.22	• Object Oriented Methodology-1: Paradigms of Programming Languages, Evolution of OO Methodology, Basic Concepts of OO Approach,
28.03.22 – 02.04.22	• Comparison of Object Oriented and Procedure Oriented Approaches, Benefits of OOPs, Introduction to Common OO Language, Applications of OOPs.
04.04.22 – 09.04.22	• Object Oriented Methodology-2: Classes and Objects, Abstraction and Encapsulation, • Inheritance, Method Overriding and Polymorphism.
11.04.22 – 16.04.22	• Java Language Basics: Introduction To Java, Basic Features, Java Virtual Machine Concepts, Primitive Data Type And Variables, Java Operators, Expressions, Statements and Arrays.
18.04.22 – 23.04.22	• Object Oriented Concepts: Class and Objects-- Class Fundamentals, Creating objects , • Assigning object reference variables; Introducing Methods, Static methods, Constructors ,
25.04.22 – 30.04.22	• Overloading constructors; This Keyword; Using Objects as Parameters, Argument passing, • Returning objects, Method overloading, Garbage Collection, The Finalize ( ) Method.
02.05.22 – 07.05.22	• Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, • Method Overriding, Abstract Classes, Polymorphism, Final Keyword.
09.05.22 - 14.05.22	• Packages: Defining Package, CLASSPATH, Package naming, Accessibility of Packages, Using Package Members.
16.05.22 – 21.05.22	• Interfaces: Implementing Interfaces, Interface and Abstract Classes, Extends and Implements together

23.05.22 – 28.05.22	• Exceptions Handling : Exception , Handling of Exception, Using try-catch , Catching Multiple Exceptions , Using finally clause , Types of Exceptions, Throwing Exceptions, • Writing Exception Subclasses.
30.05.22 – 04.06.22	• Multithreading : Introduction , The Main Thread, Java Thread Model, Thread Priorities, • Synchronization in Java, Inter thread Communication.
06.06.22 – 11.06.22	• I/O in Java : I/O Basics, Streams and Stream Classes ,The Predefined Streams, Reading from, and Writing to, Console, Reading and Writing Files , The Transient and Volatile Modifiers, Using Instance of Native Methods.
13.06.22 – 18.06.22	• Strings and Characters : Fundamentals of Characters and Strings, The String Class , String Operations , Data Conversion using Value Of ( ) Methods
20.0622 – 25.06.22	• String Buffer Class and Methods.
27.06.22 – 02.07.22	• Revision

SYLLABUS PLAN: 2nd SEMESTER 2021-22

VINOD KUMAR COMPUTER SCIENCE

B.C.A – I: LOGICAL ORGANIZATION OF COMPUTER-II Code: BCA-107

Week	Topics
21.03.22 – 26.03.22	• Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type,
28.03.22 – 02.04.22	• JK, T type and Master-Slave flip-flops. State table, state diagram
04.04.22 – 09.04.22	• State equations. Flip-flop excitation tables
11.04.22 – 16.04.22	• Sequential Circuits: Designing registers – Serial Input Serial Output (SISO), Serial Input Parallel Output (SIPO),
18.04.22 – 23.04.22	• (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers.
25.04.22 – 30.04.22	• Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters
02.05.22 – 07.05.22	• Memory & I/O Devices: Memory Parameters, Semiconductor RAM,
09.05.22 - 14.05.22	• ROM, Magnetic and Optical Storage devices, Flash memory,
16.05.22 – 21.05.22	• I/O Devices and their controllers.
23.05.22 – 28.05.22	• Instruction Design & I/O Organization: Machine instruction,

30.05.22 – 04.06.22	• Instruction set selection, • Instruction cycle,
06.06.22 – 11.06.22	• Instruction Format and Addressing Modes. I/O Interface,
13.06.22 – 18.06.22	• Interrupt structure, Program-controlled,
20.0622 – 25.06.22	• Interrupt-controlled & DMA transfer, I/O Channels, IOP.
27.06.22 – 02.07.22	• Revision

SYLLABUS PLAN: 6th SEMESTER 2021-22

VINOD KUMAR COMPUTER SCIENCE

B.C.A – II: INTRODUCTION TO .NET Code: BCA-309

Week	Topics
21.03.22 – 26.03.22	• The Framework of .Net: Building blocks of .Net Platform (the CLR, CTS and CLS),
28.03.22 – 02.04.22	• Features of .Net, Deploying the .Net Runtime, Architecture of .Net platform, Introduction to
04.04.22 – 09.04.22	• Namespaces & type distinction. Types & Object in .Net, the evolution of Web development
11.04.22 – 16.04.22	• Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes
18.04.22 – 23.04.22	• Introduction to C#: Characteristics of C#, Data types: Value types, reference types,
25.04.22 – 30.04.22	• Default value, constants, variables, scope of variables, boxing and unboxing.
02.05.22 – 07.05.22	• Operators and expressions: Arithmetic, relational, logical, bitwise, special operators,
09.05.22 - 14.05.22	• Evolution of expressions, operator precedence & associatively,
16.05.22 – 21.05.22	• Control constructs in C#: Decision making, loops,
23.05.22 – 28.05.22	• Classes & methods: Class, methods, constructors, destructors,

30.05.22 – 04.06.22	• Overloading of operators & functions. Inheritance & polymorphism: visibility control, overriding,
06.06.22 – 11.06.22	• Abstract class & methods, sealed classes & methods, interfaces.
13.06.22 – 18.06.22	• Advanced features of C#: Exception handling & error handling,
20.0622 – 25.06.22	• Automatic memory management, Input and output (Directories, Files, and streams).
27.06.22 – 02.07.22	• Revision

SYLLABUS PLAN: 2nd SEMESTER 2021-22

VINOD KUMAR COMPUTER SCIENCE

B.Com – I: Basic of Computer-II **Code: 2.06**

Week	Topics
21.03.22 – 26.03.22	• Fundamental of computers: Model of a digital computer; Functioning of a digital computer;
28.03.22 – 02.04.22	• Types of a digital computer; Advantages of computers. Difference between digital computer and analog computer,
04.04.22 – 09.04.22	• Applications of computers: Computers in Commerce, Marketing, Education and Management.
11.04.22 – 16.04.22	• Software concepts: Types of Software and their role, Different System Software types- Operating systems,
18.04.22 – 23.04.22	• Translators, System Utilities; Concept of Application Packages; Types of an Operating system- Multi-user O.S.,
25.04.22 – 30.04.22	• Multi-tasking O.S., Multi-Processing O.S; Time – sharing O.S.,
02.05.22 – 07.05.22	• Multi-Programming O.S.Operating System as a resource Manager, concept of GUI and CUI.
09.05.22 - 14.05.22	• Introduction to Windows: Components of a Application Window; Types of Windows, Windows as an Operating System,
16.05.22 – 21.05.22	• Windows explorer, Using Paintbrush, Control Panel,
23.05.22 – 28.05.22	• Installing a printer. User interfaces- CUI and GUI; Concept of a Desktop and Taskbar,

30.05.22 – 04.06.22	• Recycle Bin, My Documents and Internet Explorer icons.
06.06.22 – 11.06.22	• MS-Excel: Applications of a Spreadsheet; Advantages of an Spreadsheet; Features of Excel;
13.06.22 – 18.06.22	• Rows, Columns, Cell, Menus, Creating worksheet, Formatting, Printing,
20.0622 – 25.06.22	• Establishing worksheet links, Table creating and printing graphs, Macros, Using Built-in-functions.
27.06.22 – 02.07.22	• Revision

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