

Govt. Shivalik College Naya Nangal

Teaching plan (2020-21)

Teacher Name:Rohit Kumar  
BCA sem-1

Class:

Paper : C language

Sr. no.	Dates	Topic
1	1-5 September	<b>Programming Process:</b> Problem definition, Algorithm development, Flowchart, Coding, Compilation and debugging.
2	7-12 September	<b>Basic structure of C program:</b> History of C, Structure of a C program, Character set, Identifiers and keywords, constants, variables, data types.
3	14-19 September	<b>Operators and expressions:</b> Arithmetic, Unary, Logical, Relational operators, assignment operators, Conditional operators, Hierarchy of operations type conversion.
4	21-26 September	<b>Control statements:</b> branching statements (if, if else, switch), loop statements (for, while and do-while), jump statements (break, continue, goto), nested control structures.
5	28-03 sept -oct	<b>Functions:</b> Library functions and user defined functions, prototype, definition and call
6	5-10 october	formal and actual arguments, local and global variables, methods of parameter passing to functions, recursion
7	12-17 october	<b>I/O functions:</b> formatted & unformatted console I/O functions
8	19-24 october	<b>Storage Classes:</b> automatic, external, static and register variables.
9	26-31 october	<b>Arrays:</b> – One dimensional and two dimensional arraysDeclaration, initialization, reading values into an array, displaying array contents
10	2-7 November	<b>Strings:</b> input/output of strings, string handling functions (strlen, strcpy, strcmp, strcat & strrev), table of strings.
11	9-14 November	<b>Pointers:</b> pointer data type, pointer declaration, initialization, accessing values using pointers, pointers and arrays.
12	16-21 November	<b>Introduction to Files in C:</b> opening and closing files. Basic I/O operation on files.

13	23-03 December	MST Exams
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**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**

Teacher Name: Rohit Kumar

Class: PGDCA sem-1

Paper : C language

Sr. no.	Dates	Topic
1	1-5 September	<b>Programming Process:</b> Problem definition, program design, coding, compilation and debugging; Program Development.
2	7-12 September	<b>Basic Constructs:</b> Identifiers, Keywords, Tokens, Data Types, Constants, Input and Output in C, Type Conversion, Operators and Expressions, Precedence Hierarchy of Operators, Associativity, Library functions.
3	14-19 September	<b>Control Statements:</b> Branching, Looping
4	21-26 September	<b>Functions:</b> Definition, Prototype, Different types of functions based on arguments and return type, parameter passing mechanisms, concept of recursive function.
5	28-03 sept -oct	<b>Storage Classes</b> Different Storage Classes (static, auto, extern, register), global and local variables
6	5-10 october	<b>Arrays:</b> Definition, accessing elements, initialization, passing to functions, multi-dimensional arrays,
7	12-17 october	String handling, Applications of linear arrays: linear and binary search, Bubble Sort and selection Sort
8	19-24 october	<b>Pointers:</b> address and dereferencing operators, declaration, assignment, passing addresses to functions, using pointer arrays to sort n strings.
9	26-31 october	<b>Structure and Union:</b> Variables, Accessing members, Nested structures, pointer to structures,

10	2-7 November	concept of self-referential structures, Difference between a union and structure.
11	9-14 November	<b>File Handling in C:</b> Processing a text file through C program; Concepts of Sequential File and Random File
12	16-21 November	Text and Binary File, Formatted and Unformatted Files. (File Implementation is left out)
13	23-03 December	MST Exams

**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**

Teacher Name: Rohit Kumar

Class: BCA sem-5

Paper : C language

Sr. no.	Dates	Topic
1	1-5 September	<b>Introduction to HTML:</b> Basic HTML concepts, an overview of HTML markup. What is good Web design; the process of Web publishing; implementation;
2	7-12 September	the phases of Web site development; HTML's role in the Web; and issues facing HTML and the Web.
3	14-19 September	<b>HTML overview:</b> the structure of HTML documents; document types; the <HTML> element; the <HEAD> element; the <BODY> element;
4	21-26 September	<b>Links and Addressing:</b> Linking basics; what are URLs; linking in HTML; anchor attributes; images and anchors; image maps; semantic linking with the <LINK> element; meta-information;
5	28-03 sept -oct	<b>HTML and Images:</b> The role of images on the Web; image preliminaries
6	5-10 october	; image downloading issues; obtaining images; HTML image basics; images as buttons; and image maps.

7	12-17 october	<b>Introduction to Layout: Backgrounds, Colors, and Text;</b> design requirements; HTML approach to Web design; fonts; colors in HTML;
8	19-24 october	document-wide color attributes for <BODY>; and background images. Introduction to tables, LISTS; frames.
9	26-31 october	<b>Style Sheets:</b> style sheets basics; style sheet example; style sheet properties; positioning with style sheets;
10	2-7 November	<b>Basic Interactivity and HTML: Forms</b> form preliminaries; the <FORM> element; form controls;
11	9-14 November	<b>Introduction to Server-Side Programming:</b> This chapter covers: overview of client/server programming on the Web; server-side programming; common gateway interface (CGI);
12	16-21 November	<b>Dynamic HTML (DHTML):</b> dynamic HTML and document object model; HTML and scripting access; rollover buttons; moving objects with DHTML; and ramifications of DHTML.
13	23-03 December	<b>MST Exams</b>

**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**

**Teacher Name:Rohit Kumar**

**Class: BCA sem-5**

**Paper : JAVA SEC-B**

<b>Sr. no.</b>	<b>Dates</b>	<b>Topic</b>
1	1-5 September	<b>Inheritance:</b> types of inheritance, use of super
2	7-12 September	method overriding, final class, abstract class
3	14-19 September	wrapper classes.Arrays,
4	21-26 September	Strings and Vectors

5	28-03 sept -oct	Packages and Interfaces
6	5-10 october	visibility controls <b>Errors and Exceptions:</b> Types of errors,
7	12-17 october	Exception classes, Exception handling in java, use of try, catch, finally, throw and throws.
8	19-24 october	Taking user input, Command line arguments.
9	26-31 october	<b>Multithreaded Programming:</b> Creating Threads
10	2-7 November	Life cycle of thread, Thread priority
11	9-14 November	Thread synchronization
12	16-21 November	Inter-thread communication
13	23-03 December	<b>MST Exams</b>

**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**

**Teacher Name:Rohit Kumar**

**Class: BCA sem-2**

**Paper : DIGITAL ELECORNICS**

<b>Sr. no.</b>	<b>Dates</b>	<b>Topic</b>
1	1-6 February	<b>Fundamental Concepts:</b> Introduction to Analog and Digital Systems, Digital Signals, Basic Digital Circuits: AND, OR, NOT, NAND, NOR, XOR and XNOR gates
2	8-13 February	Boolean algebra theorems, Characteristics of Digital IC.
3	15-20 February	<b>Number Systems:</b> Positional and Non-positional number systems, Binary, Decimal, Octal and Hexadecimal, Base conversions,

4	22-27 February	Binary arithmetic: Addition and Subtraction, 1's complement, 2's complement, subtraction using 1's complement and 2's complement.
5	1-6 March	<b>Combinational Logic Design:</b> SOP and POS Representation of Logic functions
6	8-13 March	K-Map representation and simplification up to 4 variable expressions, Don't care condition.
7	15-20 March	<b>Multiplexers:</b> 4X1, 8X1 and 16X1. De-multiplexers: 1 to 4, 1 to 8 and 1 to 16. BCD to Decimal decoder,
8	22-27 March	Decimal to BCD encoder. Parity generator and Parity checker. Design of Half adder and Full adder.
9	29-03 March-April	<b>Flip-Flops:</b> Introduction, Latch, Clocked S-R Flip Flop, Preset and Clear signals, D-Flip Flop,
10	5-10 April	J-K Flip Flop, The race-around condition, Master Slave J-K Flip Flop.
11	12-17 April	D-Flip-Flop, Excitation Tables of Flip Flops. Edge-Triggered Flip Flops.
12	19-24 April	<b>A/D and D/A Converters:</b> Introduction, Digital to Analog Converters: Weighted-Register D/A converter, R-2R Ladder D/A converter. Analog to Digital Converters: Quantization and encoding, Parallel-comparator A/D converter, Counting A/D converter.
13	26-04 April-May	<b>MST Exams</b>

Govt. Shivalik College Naya Nangal

Teaching plan (2020-21)

Teacher Name: Rohit Kumar

Class: BCA sem-5

Paper : web designing using ASP.NET

Sr. no.	Dates	Topic
1	1-6 February	<b>Introduction to .net framework:</b> - Genesis of .NET, Features, Advantages and disadvantages of .net framework. Common Language Runtime:-Common Type System, Common Language Specification, .Net binaries, Microsoft Intermediate Language, Meta Data, .Net types and .net namespaces.

2	8-13 February	<b>Basics of ASP.NET:</b> - Introducing ASP .NET– Creating ASP .NET applications using command line compiler and visual studio .net IDE.
3	15-20 February	<b>Introduction to c#:-</b> variables, Constants, Data Types, Operators, Control Structures and loops, Arrays, events.
4	22-27 February	<b>Introduction to Classes and objects Web forms, Standard Controls:</b> - Display information, Accepting user input, Submitting form data,
5	1-6 March	displaying images, using the panel control, using the hyperlink control.
6	8-13 March	<b>Validation Controls:</b> required field validation control, range validator Control, compare validator control, regular expression validator control, custom validator control, validation summary controls.
7	15-20 March	<b>Rich Web Controls:</b> -Accepting file uploads, displaying a calendar, Displaying advertisement, displaying different page views, displaying a wizard. List Controls: Dropdown list control, Radio button, list controls.
8	22-27 March	Grid View Controls: Grid view control fundamentals, using field with the grid view control, working with grid view control events extending the grid view control. Debugging, caching and deploying ASP .NET pages.
9	29-03 March-April	<b>Master pages:</b> - Designing Website with Master Pages: Creating master pages, Modifying master page content
10	5-10 April	<b>ADO.NET:-</b> Changes from ADO to ADO.NET, ADO .NET Managed Providers – OleDb and SQL Managed Providers – OleDb Data Adapter Type.
11	12-17 April	SQL Data Source Control: Creating database connections, executing database commands, Using ASP.NET parameters with the SQL data source controls,
12	19-24 April	programmatically executing SQL data source commands, Caching database data with the SQL data Source controls.
13	26-04 April-May	<b>MST EXAMS</b>

**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**

**Teacher Name:Rohit Kumar**

**Class: BCA sem-5**

**Paper : OPERATING SYSTEM SEC-B**

<b>Sr. no.</b>	<b>Dates</b>	<b>Topic</b>
1	1-6 February	<b>Deadlocks</b> – Characteristics of deadlocks, methods for handling deadlocks
2	8-13 February	deadlock prevention, deadlock avoidance
3	15-20 February	<b>Memory Management</b> – Logical versus Physical address space, swapping
4	22-27 February	contiguous allocation, Paging,
5	1-6 March	Concept of Virtual memory, Implementation by Demand Paging
6	8-13 March	Page replacement algorithms – FIFO, Optimal, LRU,.
7	15-20 March	Concept of thrashing
8	22-27 March	<b>File Management</b> – Allocation methods: contiguous allocation,
9	29-03 March-April	linked allocation and indexed allocation;
10	5-10 April	<b>Device Management</b> – Disk Scheduling: FCFS,
11	12-17 April	SSTF, SCAN,
12	19-24 April	C-SCAN, LOOK.
13	26-04 April-May	<b>MST EXAMS</b>

**Govt. Shivalik College Naya Nangal**

**Teaching plan (2020-21)**



Teacher Name:Rohit Kumar

Class:PGDCA sem-2

Paper : Database Management of System

Sr. no.	Dates	Topic
1	1-6 February	<b>Database Management System:</b> Characteristics, Database: Definition, components, definition, characteristics, advantages over traditional file processing system,
2	8-13 February	User of database, DBA and its responsibilities, Database schema, instance
3	15-20 February	DBMS architecture, data independence.
4	22-27 February	<b>Database languages:</b> DDL, DML, DCL. Database utilities, Data Models, Keys: Super, candidate, primary, unique, foreign
5	1-6 March	<b>Entity relationship model:</b> Concepts, mapping cardinalities, entity relationship diagram, weak entity sets, strong entity set,
6	8-13 March	aggregation, generalization, converting ER diagrams to tables
7	15-20 March	Overview of Network and Hierarchical model.
8	22-27 March	<b>Relational Data Model:</b> concepts, constraints. Relational algebra: Basic operations, additional operations.
9	29-03 March-April	<b>Database Design:</b> Functional dependency, normalization (upto 3NF
10	5-10 April	), data base recovery, database integrity, Definition and problems arising out of concurrency
11	12-17 April	Authentication, authorization, methods of implementing security.
12	19-24 April	<b>SQL: Basic SQL Query, Creating Table and Views</b>
13	26-04 April-May	<b>MST EXAM</b>