Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs. Kavita
Class and Section: BCA (COMPUTER SCIENCE)
Subject: Computer fundamentals and PROGRAMMING
Paper: BCA101
Year/Semester: 1st year/ 1st sem

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	Computer Fundamentals: Generations of Computers, Definition, Block Diagram along with its components, characteristics & classification of computers
October (Week-3)	Limitations of Computers, Human-Being VS Computer, Applications of computers in various fields. Assignment on block diagram of generation of computer
October (Week-4)	Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM, Cache Memory, flash memory
November (Week-1)	Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. Test

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	Computer hardware & software: I/O devices, definition of software, relationship between hardware and software
November (Week-3)	types of software. Overview of operating system: Definition, functions of operating system. Presentation of operating system

	through smart board
November (Week-4)	concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time
December (Week-1)	single-user & multi-user operating system. Computer Virus: Definition, types of viruses, Characteristics of viruses, anti-virus software

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	Computer Languages: Analogy with natural language, machine language, assembly language, high-level languages
December (Week-3)	forth generation languages, compiler, interpreter, assembler, Linker, Loader , characteristics of a good programming language
December (Week-4)	Planning the Computer Program: Concept of problem solving
January (Week-1)	Problem definition, Program design, Debugging, Types of errors in programming, Documentation. Presentation of planning the computer program by ppt.

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	Structured programming concepts, Programming methodologies viz.
January (Week-3)	top-down and bottomup programming, Advantages and disadvantages of Structured programming
January (Week-4)	Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN)
February (Week-1)	Network topologies, Modes of data transmission, Forms of data transmission,

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	Transmission channels(media), Introduction to internet and its uses, Applications of internet
February (Week-3)	Hardware and Software requirements for internet, Intranet, Applications of intranet.
February (Week-4)	Book revision

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs.Preeti	
Class and Section:	**BCA**
Subject:	**LOGICAL ORGANIZATION OF COMPUTER-I**
Paper:	**104**
Year/Semester:	**1st year/1st semester.**

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	**Information Representation: Number Systems.**
October (Week-3)	**Binary Arithmetic, Fixed-point and Floating point representation of numbers.**
October (Week-4)	**BCD Codes, Error detecting and correcting codes, revise.**
November (Week-1)	**Character Representation – ASCII, EBCDIC, Unicode .revise.**

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	Binary Logic: Boolean Algebra, Boolean Theorems.
November (Week-3)	Boolean Functions and Truth Tables, Canonical and Standard forms of Boolean functions.
November (Week-4)	Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions – Venn Diagram.
December (Week-1)	Karnaugh Maps.

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT.
December (Week-3)	Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR, Other
December (Week-4)	Revise ,test
January (Week-1)	NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR.

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT and OR-AND-INVERT implementations of digital circuits.
January (Week-3)	Combinational Logic – Characteristics, Design Procedures, analysis procedures.
January (Week-4)	Multilevel NAND and NOR circuits
February (Week-1)	Combinational Circuits: Half-Adder, Full-Adder, revise.

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor.
February (Week-3)	Encoders, Decoders, Multiplexers, Demultiplexers.
February (Week-4)	Comparators, Code Converters, BCD to Seven-Segment Decoder. Revise.

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs. Preeti	
Class and Section:	BCA
Subject:	LOGICAL ORGANIZATION OF COMPUTER-II
Paper:	107
Year/Semester:	1st year/2nd semester

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Sequential Logic: Characteristics, Flip-Flops.
March(Week-4)	Flip-Flops, Clocked RS, D type, JK.
April (Week-1)	T type and Master Slave flip-flops. State table.
April (Week-2)	State diagram and state equations. Flip-flop excitation tables.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Sequential Circuits: Designing registers – Serial Input Serial Output
April (Week-4)	Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) .
May(Week-1)	Designing counters – Asynchronous and Synchronous Binary Counters.
May (Week-2)	Modulo-N Counters and Up-Down Counters,Revise.

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	Memory & I/O Devices: Memory Parameters, Semiconductor RAM.
May (Week-4)	Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers.
June (Week-1)	Instruction Design & I/O Organization: Machine instruction.
June (Week-2)	Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes.

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	I/O Interface, Interrupt structure, Revise.
June (Week-4)	Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP.
July (Week-1)	Book revise.

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor:	Mrs.Indu
Class and Section:	B.C.A. 1st Year
Subject:	Mathematics
Paper:	Elemenarty Mathematics
Year/Semester:	1st Year/2nd Semester

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Measure of Central Tendency
March(Week-4)	Measure of Dispersion
April (Week-1)	Correlation and regression
April (Week-2)	Revision and Tests

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Algorithms
April (Week-4)	Graph, Types of graphs, degree of vertex, sub graph, isomorphic graphs
May(Week-1)	Path and Circuit : Eulerian, Hamiltonian path circuit
May (Week-2)	Revision and Tests

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor:	**Mrs. Indu**
Class and Section:	**B.C.A. 1st Semester**
Subject:	**Mathematics**
Paper:	**Mathematics-I**
Year/Semester:	**1st year/ 1st semester**

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	• System of measuring angles, Trigonometry Functions • Value of Trigonometric Ratios and allied angles
October (Week-3)	• Addition, subtraction and product formulae
October (Week-4)	• Multiple Angles formula and trigonometric equation and graphs
November (Week-1)	• Inverse Trigonometric functions

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	• **Revision and Tests**
November (Week-3)	• Limit of a Function
November (Week-4)	• Continuity of a Function
December (Week-1)	• Derivative of a function

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	• **Revision and Tests**
December (Week-3)	• System of Coordinates
December (Week-4)	• Straight lines
January (Week-1)	• **Revision and Tests**

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	• Solution of Quadratic equation by factor method and complete square method
January (Week-3)	• Solution of Quadratic equation by Discriminant method and relation of roots
January (Week-4)	• **Revision and Tests**
February (Week-1)	• Introduction of complex numbers

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	• Operations on Complex numbers
February (Week-3)	• Magnitude, Argument and square root of Complex numbers
February (Week-4)	• **Revision and Tests**

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Dr. Ramesh Saini
Class and Section: BCA-1st
Subject: 'C'-Language Theory & Practical
Paper: BCA-106
Year/Semester: 2nd

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords
March(Week-4)	Test, Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() Functions, Operators & Expression: Arithmetic
April (Week-1)	relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators, Test
April (Week-2)	Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity, Assignment.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, Test, switch statement, goto statement.
April (Week-4)	Decision making & looping: For, while, and do-while loop, jumps in loops, break, continue statement, Nested loops, Assignment.
May(Week-1)	Functions: Standard Mathematical functions, Input/output: Unformatted & formatted I/O function in C, Test, Input functions viz. getch(), getche(), getchar(), gets(), output functions viz.
May (Week-2)	putch(), putchar(), puts(), string manipulation functions. User defined functions: Introduction/Definition, Test, prototype, Local and global

	variables, passing parameters, recursion, Assignment.

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	Arrays, strings and pointers: Definition, types, initialization, processing an array, passing arrays to functions
May (Week-4)	Test, Array of Strings. String constant and variables, Test
June (Week-1)	Declaration and initialization of string
June (Week-2)	Input/output of string data, Introduction to pointers, Assignment.

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	Storage classes in C: auto, extern, Test, register and static storage class
June (Week-4)	their scope, storage, & lifetime, Test, Algorithm development
July (Week-1)	Flowcharting and Development of efficient program in C, Assignment.

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Dr. Ramesh Saini
Class and Section: BCA 1st Sem.
Subject: PC Software Theory & Practical

Paper: BCA-102
Year/Semester: BCA 1st Sem.

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	MS-Windows: Operating system-Definition & functions, basics of Windows. Basic components of windows
October (Week-3)	icons, types of icons, taskbar, activating windows, using desktop, Test, title bar, running applications Test, Control panel – display properties,
October (Week-4)	exploring computer, managing files and folders, copying and moving files and folders
November (Week-1)	adding and removing software and hardware, setting date and time, Assignment, screensaver and appearance. Using windows accessories.

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	Documentation Using MS-Word - Introduction to word processing interface, Toolbars, Menus
November (Week-3)	Test, Creating & Editing Document, Formatting Document, Finding and replacing text, Format painter, Header and footer
November (Week-4)	Test, Drop cap, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Previewing and printing document
December (Week-1)	Advance Features of MS-Word-Mail Merge, Macros, Tables, File Management, Printing, Styles, linking and embedding object, Template, Assignment.

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Cell, cell address, Test Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel
December (Week-3)	Test, Header and footer, Formulas and Functions, Charts, Cell referencing, Page setup
December (Week-4)	Macros, Advance features of MS-Excel-Pivot table & Pivot Chart, Test, Linking and Consolidation
January (Week-1)	Database Management using Excel-Sorting, Filtering, Validation, What if analysis with Goal Seek, Conditional formatting, Assignment.

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	Presentation using MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides
January (Week-3)	Test, Organizational Charts, Excel Charts, Word Art, Layering art Objects
January (Week-4)	Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Test
February (Week-1)	Inserting Recorded Sound Effect or In-Built Sound Effect, Assignment.

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	Revision
February (Week-3)	Class Test
February (Week-4)	House Examination

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: : Mrs . Nisha Suhag
Class and Section: BCA(Computer Science)
Subject: Structured Systems Analysis and Design
Paper:109
Year/Semester: 1ST Year/2ND sem.

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Introduction to system, Definition and characteristics of a system, Elements of system, Types of system, System development life cycle.
March(Week-4)	Role of system analyst, Analyst/user interface, System planning and initial investigation: Introduction, Bases for planning in system analysis.
April (Week-1)	Sources of project requests, Initial investigation, Fact finding.
April (Week-2)	Information gathering tools, Fact analysis, Determination of feasibility.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts.
April (Week-4)	Decision tree, decision table, structured English, Pros and cons of each tool, Feasibility study: Introduction, Objective, Types, Stfeasibility analysis, Feasibility report, Oral presentation.
May(Week-1)	Feasibility report, Oral presentation, Cost and benefit analysis: Identification of costs and benefits.
May (Week-2)	Classification of costs and benefits, Methods of determining costs and benefits. (Test)

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	System Design: System design objective, Logical and physical design, Design Methodologies, structured design. (Group discussion)
May (Week-4)	Form-Driven methodology(IPO charts), structured walkthrough, Input/Output and form design: Input design, Objectives of input design, Output design.
June (Week-1)	Objectives of output design, Form design, Classification of forms, requirements of form design.
June (Week-2)	Types of forms, Layout considerations, Form control. (BY PRESENTATION)

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of system tests.
June (Week-4)	Quality assurance goals in system life cycle, System implementation, Process of implementation, System evaluation, System maintenance and its types, System documentation, Forms of documentation. (BY PRESENTATION)
July (Week-1)	Book revision

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Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Dr. Ramesh Saini
Class and Section: BCA-1st
Subject: 'C'-Language Theory & Practical
Paper: BCA-106
Year/Semester: 2nd

16 March 2021 to 15 April 2021

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16 May 2021 to 15 June. 2021

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16 June 2021 to 06 July 2021

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July (Week-1)	Flowcharting and Development of efficient program in C, Assignment.