November: Week 1-. Computer System: Meaning, scope, types; Basic computer organization ,MS-WORD

November: Week 2- : Central Processing Unit, input, output, and storage devices; Introduction to software; System software

November: Week 3- operating system, user interface and its types,MS-WORD

November: Week 4 Application software - word processing, spreadsheets; Introduction to databases, tables, queries, reports and form generation

December: Week 1- Information Technology in Business: Concept of information technology;

December: Week 2 Local Area Network– media & topologies and Wide Area Networks;

December :Week 3- Electronic data processing,MS-EXCEL Assignments2

December: Week 4- - Intranet and extranet, concept and evolution;

January: Week 1 World Wide Web; Multimedia technologies,MS-EXCEL

January: Week 2- Video conferencing; Broadband networks;

January: Week 3 class test, **Power Point practical**

January: Week 4 Power Point practical

January: Week 5-, Planning and designing web pages

February: Week 1- . Fuzzy Logic, MS-ACCESS Practical work

February: Week 2- MS-ACCESS Practical work

February: Week 3- Class Test

February: Week 4- Revision

Anuradha Chadha

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name: Anuradha Chadha

Computer Network (BCA-354)

Class: BCA(5TH sem.)

Planner

Session–(2020-21)

November: Week 1-. Introduction to Data Communication and Computer Networks; Uses of Computer Networks; Types of Computer

November: Week 2-, Topologies; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs,

November: Week 3- Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways

November: Week 4 ; Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services; OSI Reference Model, class test

December: Week 1- NetworksNetworking Models: Distributed Systems, Client/Server Model, Peer-to-Peer Model, Web-Based Model and Emerging File-Sharing Model

December: Week 2 Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate; Transmission Impairment; Data Rate Limits;

December :Week 3- Guided Transmission Media; Wireless Transmission ; Communication Satellites; class test

December: Week 4- Switching and Multiplexing; Modems and Modulation techniques; ADSL and Cable Modems;

January: Week 1 Data Link Layer Design issues; Error Detection and Correction; Sliding Window Protocols: One-bit, Go Back N and Selective Repeat

January: Week 2- class test, Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols;

January: Week 3.- Introduction to LAN technologies: Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet; Token Ring;

January: Week 4-; Introduction to Wireless LANs and Bluetooth; ,VLANs Routing Algorithms: Flooding, Shortest Path Routing

January: Week 5-, Distance Vector Routing; Link State Routing, Hierarchical Routing; Congestion Control Assignments 2
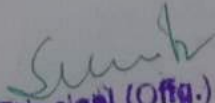
February: Week 1- Traffic shaping; Choke packets; Load shedding; Elements of Transport Protocols

February: Week 2- Network Security Issues: Security attacks; Encryption methods; Digital Signature; Digital Certificate

February: Week 3- Class Test

February: Week 4- Revision

Anuradha Chadha

Teacher Name:Anuradha Chadha

Software Engineering (BCA-234)

Class: BCA-II(3rd sem.)

Planner

Session–(2020-21)

November: Week 1-. Introduction: Program vs. Software, Software Engineering

November: Week 2-, Programming paradigms, Software Crisis – problem and causes

November: Week 3- Phases in Software development: Requirement Analysis, Software Design, Coding, Testing, Maintenance, Software Development Process Models: Waterfall, Prototype

November: Week 4-, Evolutionary and Spiral models, , Role of Metrics

December: Week 1-class test, Feasibility Study, Software Requirement Analysis and Specifications: SRS.

December: Week 2 Need for SRS, Characteristics of an SRS, Components of an SRS, Problem Analysis

December :Week 3- Information gathering tools, Organising and structuring information

December: Week 4- Requirement specification, validation and metrics, Assignments 2

January: Week 1-. Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table

January: Week 2- Decision trees, Structured English, Entity-Relationship Software Project Planning: Cost estimation:

January: Week 3.- COCOMO model, Project scheduling, Staffing and personnel planning, team structure, class test

January: Week 4- Software configuration management, Quality assurance plans, Project monitoring plans, Risk Management

January: Week 5-, Software testing strategies: unit tnestig integration testing, class test

February: Week 1- System testing, Alpha and Beta testing. Black box, white box testing. Cyclomatic Complexity.

February: Week 2- Software Implementation and Maintenance: Type of maintenance, Management of Maintenance, Maintenance Process, maintenance characteristics.

February: Week 3- Class Test

February: Week 4- Revision

Anuradha Chadha

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name: Anuradha Chadha

Software Engineering (BCA-234)

Class: BCA-II(3rd sem.)

Planner

Session–(2020-21)

November: Week 1-. Introduction: Program vs. Software, Software Engineering

November: Week 2-, Programming paradigms, Software Crisis – problem and causes

November: Week 3- Phases in Software development: Requirement Analysis, Software Design, Coding, Testing, Maintenance, Software Development Process Models: Waterfall, Prototype

November: Week 4-, Evolutionary and Spiral models, , Role of Metrics

December: Week 1-class test, Feasibility Study, Software Requirement Analysis and Specifications: SRS.

December: Week 2 Need for SRS, Characteristics of an SRS, Components of an SRS, Problem Analysis

December :Week 3- Information gathering tools, Organising and structuring information

December: Week 4- Requirement specification, validation and metrics, Assignments 2

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February: Week 3- Class Test

February: Week 4- Revision

Anuradha Chadha

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

November: Week 1-. Introduction to VB: Visual & Non-Visual programming, Procedural, Object-Oriented, Object-Based and Event-Driven Programming Languages Visual Development and Event Driven programming

November: Week 2, VB as Even-Driven and Object-Based Language, VB Environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties

November: Week 3- Window, Form Designer, Form Layout, Immediate window, Default Controls in Tool Box

November: Week 4- Variables: Declaring Variables, Types Basics of Programming of variables, Converting Variables Types, Class test

December: Week 1- User Defined Data Types, Forcing Variable Declaration, Scope & Lifetime of Variables. Constants: Named & Intrinsic

December: Week 2 Operators: Arithmetic, Relational & Logical operators, Input/output in VB: Various Controls for I/O, Message box, Input Box, Print statement

December :Week 3- Class test, Decision Statements in VB - if statement, if-then-else, select-case ,Programming

December: Week 4-,; Looping Statements in VB: do-loop, for-next, while-wend; Exit statement, Nested Control Structure; Assignments 2

January: Week 1-. Arrays: Declaring and using Arrays, One-dimensional, Two-dimensional and Multi-dimensional Arrays, Static and Dynamic arrays, Array of Arrays.

January: Week 2- class test, Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures, Arguments - Passing Mechanisms,

January: Week 3.- Optional Arguments, Named Arguments, Functions Returning Custom Data Types

January: Week 4- Simple Program Development in VB such as Sum of Numbers, Greatest among Numbers

January: Week 5-, , Checking Even/Odd Number, HCF of Two Numbers, Generate Prime Number

February: Week 1- , Generate Fibonacci Series, Factorial of a Number, Searching, Sorting, etc.

February: Week 2- : Programming

February: Week 3- Class Test

February: Week 4- Revision

Anuradha Chadha

Teacher Name:Nidhi

Windows and PC Software(BCA-112)

Class: BCA I *(Sem-1)*

Planner

Session-(2020-21)

November:Week 1- Windows and its Features, Hardware Requirements of Windows. Windows Concepts, Windows Structure, Desktop, Taskbar, Start Menu, My Pictures.

November:Week 2 My Music, My Documents, Recycle Bin. Managing Files, Folders and Disk My Computer, Windows Explorer. Using CD, DVD, Pen Drive, Burning CD.

November:Week 3- Entertainment- Media Players, Sound Recorder, Volume Control.

November:Week 4- Managing Hardware & Software - Installation of Hardware & Software, Scanner, Web Camera, Printers. System Tools - Backup, Character Map, Clipboard Viewer.

December:Week 1- Drive Space, Scandisk, System Information, System Monitor, Disk Cleanup,Using Windows Update, Internet Explorer. Multiple User Features.

December :Week 2- Accessibility Features of Windows - Sharing Folders and Drives, Browsing the Entire Network, Using Shared Printers. Control Panel & its components.

December :Week 3- Excel, Toolbars, Menus, Various Data Types, Cell, Insert/delete Rows.

December :Week 4- Working with Data & Ranges, Different Views of Worksheets, Column Freezing, Labels, Hiding, Using different features with Data,Cell Formatting including Borders.

January:Week 1- Creating Multiple Worksheets; Use of Formulas, Calculations & Functions.

January :Week 2- Cell Referencing, Absolute and Relative Addressing, Different Chart Types .

January :Week 3- Inserting Chart Wizard, Printing of Worksheets with various options .

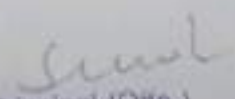**January :Week 4**- Database: Creation, Sorting, Query and Filtering a Database.

January: Week 5- Creating and Using Macros; Pivot table & Pivot chart.

February:Week 1- Macro in Detail.

February :Week 2- Assignments, Revision

February: Week 3- Revision

February: Week 4- Test

Principal (Offg.)

Arya Kanya Mahavidyalaya

Teacher Name:Nidhi

COMPUTER-ORIENTED NUMERICAL METHODS (BCA-236)

Class: BCA II *(Sem-III)*

Planner

Session–(2020-21)

November:Week 1-Computer Arithmetic: Floating-point representation of numbers, arithmetic operations with normalized floating-point numbers.

November: Week 2-Error in number representation-inherent error, truncation, absolute, relative, percentage and round-off error. Iterative Methods: Bisection, False position.

November: Week 3- Newton-Raphson method, Iteration method, discussion of convergence. Bairstow's method, Assignment.

November:Week 4- Solution of simultaneous linear equations and ordinary differential equations: Gauss-Elimination methods, pivoting.

December: Week 1- Ill-conditioned equations.Gauss-Seidal iterative method, Euler method, Euler modified method.

December :Week 2- Taylor-series.Range-Kutta methods,Predictor-Corrector methods.

December :Week 3- Polynomial interpolation: Newton, Lagranges.

December :Week 4- Approximation of functions by Tayler Series. Chebyshev polynomial.

January:Week 1- Second kind and their relations, Orthogonal properties.

January :Week 2- Numerical Differentiation and integration: Differentiation formulae based on polynomial fit. Class Tests.

January :Week 3- pitfalls in differentiation, Trapezoidal.
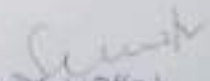
January :Week 4- Simpson Rules.

January: Week 5- Gaussian Quadrature.

February:Week 1-. Difference tables

February :Week 2- Revision

February: Week 3- Assignments

February: Week 4- Test.

Principal (Offg.)
Arya Kanya Mahavidyalya-
Shahabad Markanda

Teacher Name:Nidhi

BUSINESS DATA PROCESSING AND PC SOFTWARE-1 (BC(VOC)-106)

Class: Bcom(CAV)-I *(Sem-I)*

Planner

Session-(2020-21)

November:Week 1 Data processing, various business functions.

November:Week 2 Use of computers in data processing and in carrying out business functions, concepts of data and information.

November:Week 3- Characteristics of information, economics of business data processing.

November:Week 4- Impact of data processing on business organizations.

December:Week 1- Information and product flow in production environment, concepts of records and files

December :Week 2- Types of file organizations, data capturing

December :Week 3- , Data preparation, data verification and validation

December :Week 4- Data editing.

January:Week 1- Application of word processing, menus and tool bars, word processor: creating, entering, saving and printing the document.

January :Week 2- Editing and formatting text, mail merge and macros.

January :Week 3- Spreadsheet: application, menus and tool bar.

January :Week 4- Preparing tables, charts, sorting, etc., running applications in Excel.

Jannary: Week 5- Libra Office Calc, creating formulae in spreadsheets.

February:Week 1-. RDBMS software: an overview.

February :Week 2- RDBMS software in Detail.

February: Week 3- Assignments.

February: Week 4- Test.

Principal (Offg.)
Arya Kanya Mahavidyalaya

Teacher Name:Nidhi

SYSTEM ANALYSIS & DESIGN (BC (VOC)-506)

Class: Bcom(CAV)-III (*Sem-V*)

Planner

Session–(2020-21)

November:Week 1 SAD: definition of system, characteristics.

November:Week 2 System elements, types of system.

November:Week 3- System development life cycle.

November:Week 4- Techno-economic feasibility.

December:Week 1- Role of system analyst the process of logical and physical design

December :Week 2- form design

December :Week 3- form design: input, output

December :Week 4- System testing

January:Week 1- Alpha and Beta Testing

January :Week 2- Updown and bottom up approach.

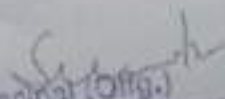January :Week 3- Interation Testing, Class Test.

January :Week 4- Auditing

January: Week 5- System maintenance

February:Week 1- Threats to security

February :Week 2- Control measures.

February: Week 3- Assignments

February: Week 4- Test

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

November: Week 1- Windows: Basics of Windows, Windows History, Basic components of windows, icons, types of icons, taskbar, activating windows.

November: Week 2- using desktop, title bar, Windows explorer, managing files and folders.

November: Week 3- Configuring System devices, Control panel, using windows accessories.

November: Week 4- Microsoft Word – Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool.

December: Week 1- Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word-Mail Merge, Tables, File Management, Printing, Styles, embedding object.

December : Week 2- Introduction to MS-Excel, Creating & Editing Worksheet, Formatting.

December : Week 3-, Formulas and Functions, Charts, Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation.

December : Week 4- Database Management using Excel-Sorting, Filtering, Table, Validation, Goal Seek, Scenario.

January: Week 1- Presentation using PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts.

January : Week 2- Word Art, Layering art Objects, Animations and Sounds

January : Week 3- Inserting Animated Pictures or Accessing through Object, Assignments.

January : Week 4- Object, Inserting Recorded Sound Effect.

January: Week 5- In-Built Sound Effect.

February: Week 1- Windows types in Detail.

February : Week 2- Assignments, Revision

February: Week 3- Class Test

February: Week 4- Revision

Teacher Name:parwinder kaur
Computer application in bussiness
Class-Bcom ^{1st} sem
Planner
Session 2020-2021

November:week1 introduction to computer system. Memory and mass storage,primary memory,secondary memory.

November :week2 characterstics of computer,cpu

November :week3 types of software,different hardware..

November:week4 application and utility software,assignment of computer system.

December :week1 introduction to operating system.

December:week2 applications of operating system.

December:week3 co-operating process,threads

December:week4 os for tabs,sessional test.

December:week5 open source

January:week1 application software

January:week2 dbms,network bases..

January:week.types of network

January :week4 segmentation,assignment of network.

February:week1 memory management,demand paging.

February :week2 virtual memory.

February:week3 windows.

February:week 4 revision

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher name:Parwinder kaur
Programming in C
Class-BCA-1st sem
Planner
Session 2020-2021

November:week1 introduction to c,importance of c,structure of c program

November :week2 character set,data types,variables,constant,identifiers,assignment statement,symbolic constant and variables.

November :week3 formatted input and output,getch(),getche(),getchar,putchar.

November:week4 gets puts printf(),scanf() ,assignment of i/o,putchar();

December :week1 operator and expression,unaryconditional operator and special operator.

December:week2 arithmetic operators bitwise operators,comma operator.

December:week3 precedence and associativity class test,operator hierarchy.

December:week4 if condition,if else,nested if statement,switch statement.

December:week5 go to statement,continue statement, sessional test

January:week1 looping and branching,jumps in loop.

January:week2 do while loop,while loop,for loop.

January:week3 i/o functions,assignment of loop,passing parameter.

January :week4 recursion,class test

February:week1 storage class,processing and array.
February :week2 auto and extern,
February:week3 string and array
February:week 4 revision..

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name:parwinder kaur
Operating system-1
Class-BCA-5th sem
Planner
Session 2020-2021

November:week1 introduction to operating system.

November :week2 characterstics of operating system,function of operating system.

November :week3 muttiprogramming and multitasking operatingsystem

November:week4 system calls and system program,assignment of types of operating system

December :week1 process state and process control block

December:week2 context switch,operation on process

December:week3 co-operating process,threads

December:week4 cpu scheduling algorithm,sessional test.

December:week5 round robin scheduling.

January:week1 deadlock and their necessary condition....

January:week2 safe and unsafe state,banker algorithm.

January:week3 memory management,paging,segmentation.

January :week4 segmentation,assignment of dedlock,logical address,physical address.

February:week1 memory management,demand paging.

February :week2 virtual memory,and page fault.

February:week3 file management. Reading in a file writing in a file...

February:week 4 revision

Principal (Oftg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name:parwinder kaur
Programming in C++
Class-BCA 3nd sem
Planner
Session 2020-2021

November:week1 introduction to object oriented programming

November :week2 class,object,data hiding,encapsulation and abstraction

November :week3 data member and member function,scope resolution operator

November:week4 accessing data member and function ,assignment of class and object.

December :week1 constructor,default constructor and their types.

December:week2 copy and parameterized constructor.,destructor

December:week3 console input and output. Unformatted input and output.

December:week4 formatted input and output.

December:week5 unformatted input output function,sessional test

January:week1 manipulators and friend function.

January:week2 array of object,passing and returning object.

January:week3 array of ponter,this pointer. assignment of constructor

January :week4 passing and returning object,class test

February:week1 polymorphism and their types,static binding and dynamic binding.

February :week2 unary and binary operators,function overloading,constructor overloading.

February:week3 function overloading and inline function.

February:week 4 revision

Teacher Name: RACHITA KANSAL

Computer Architecture (BCA-233)

Class: BCA-II (3rd SEM)

Planner

Session–(2020-21)

November: Week 1- Basic Computer Organization and Design: Instruction Codes, Computer registers

November: Week 2- Computer Instructions, Timing and Control, Instruction Cycle

November: Week 3- Memory reference instructions, Input-Output and Interrupt

November: Week 4- Design of Basic computer, Design of accumulator logic

December: Week 1- Register Transfer and Micro operations: Register Transfer Language (RTL), register transfer, Bus and Memory Transfers.

December: Week 2- Arithmetic Microoperations, Logic Microoperations, Shift Microoperations

December: Week 3- Arithmetic Logic Shift Unit, Micro programmed Control: Control memory

December: Week 4- address sequencing, microprogram sequencer, Design of Control Unit

January: Week 1- Central Processing Unit: General registers Organization

January: Week 2- Stack Organization, Instruction formats

January: Week 3- Addressing Modes, Data Transfer and Manipulation

January: Week 4- Program Control, Program Interrupt, RISC, CISC

January: Week 5- Memory Organization: Memory hierarchy, Auxiliary Memory, Associative Memory

February: Week 1- Interleaved memory, Cache memory, Virtual Memory, Memory Management Hardware

February: Week 2- Input Output Organization : Peripheral devices , Input-Output Interface

February: Week 3- Asynchronous data transfer, Modes of Transfer, Priority Interrupt, Direct Memory Access(DMA),Input-Output Processor(IOP)

February: Week 4- Class Test and Revision

Rachita Kansal

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name: RACHITA KANSAL

Web Designing (BCA-351)

Class: BCA-III (5th SEM)

Planner

Session–(2020-21)

November: **Week 1-** Introduction to Internet and World Wide Web; Evolution and History of World Wide Web

November: **Week 2-** Basic Features; Web Browsers; Web Servers

November: **Week 3-** Hypertext Transfer Protocol; URLs; Searching and Web- Casting Techniques

November: **Week 4-** Search Engines and Search Tools

December: **Week 1-** Steps for Developing Website; Choosing the Contents; Home Page; Domain Names

December: **Week 2-** Internet Service Provider; Planning and Designing Web Site

December: **Week 3-** Creating a Website; Web Publishing: Hosting Site

December: **Week 4-** Introduction to HTML; Hypertext and HTML; HTML Document Features

January: **Week 1-** HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line, Creating Links; Headers; Text Styles

January: **Week 2-** Text Structuring; Text Colors and Background; Formatting Text

January: **Week 3-** Page layouts; Insertion of Text, Movement of Text

January: **Week 4-** Images: Types of Images, Insertion of Image, Movement of Image Ordered and Unordered lists

January: **Week 5-** Ordered and Unordered lists

February: **Week 1-** Inserting Graphics; Table Handling Functions like Columns, Rows, Width

February: **Week 2-** Colours; Frame Creation and Layouts; Working with Forms and Menus;

February: **Week 3-** Working with Buttons like Radio, Check Box;

February: **Week 4-** Class Test and Revision

Rachita Kansal

Teacher Name: RACHITA KANSAL

Logical Organization of Computers-I (BCA-114)

Class: BCA-I (1st SEM)

Planner

Session–(2020-21)

November: Week 1- Basic Information Representation: Number Systems, Binary Arithmetic

November: Week 2- Fixed-point and Floating-point representation of numbers

November: Week 3- BCD Codes, Error detecting and correcting codes

November: Week 4- Character Representation – ASCII, EBCDIC.

December: Week 1- Binary Logic: Boolean algebra, Boolean Theorems

December: Week 2- Boolean Functions and Truth Tables, Canonical and Standard forms of Boolean functions

December: Week 3- Simplification of Boolean Functions –Venn Diagram, Karnaugh Maps.

December: Week 4- Digital Logic: Basic Gates – AND, OR, NOT

January: Week 1- Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc.

January: Week 2- implementations of digital circuits

January: Week 3- Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor

January: Week 4- Full-Subtractor, Encoders, Decoders

January: Week 5- Comparators, Code Converters

February: Week 1- Combinational Logic –Characteristics, Design Procedures, analysis procedures.

February: Week 2- Multiplexers, Demultiplexers

February: Week 3- Class Test and Revision

February: Week 4- Class Test and Revision

Rachita Kansal

Principal (Offg.)
Arya Kanya Mahavidyalaya
Shahabad Markanda

Teacher Name: RACHITA KANSAL

COMPUTER FUNDAMENTALS AND LOGICAL ORGANIZATION (BC(VOC)-105)

Class: B.Com CAV-I(1st SEM)

Planner

Session–(2020-21)

November: Week 1- Introduction to computers: definition, components and characteristics of computers

November: Week 2- input and output devices: memory and mass storage devices; memory hierarchy

November: Week 3- RAM, ROM, EPROM, PROM and other types of memory

November: Week 4- cloud memory; logical organization of computer

December: Week 1- Number systems, binary arithmetic operations. character codes and error detecting and correcting codes ,Boolean algebra, Boolean Fuctions

December: Week 2- Truth tables, simplifications of Boolean functions, digital logic gates.

December: Week 3- combinational logic- adders subtractions, encoders, decoders, multiplexors, de-multiplexors.

December: Week 4- sequential logic- flip flops, shift registers, counters, memory organization semiconductor RAMs and ROMs;

January: Week 1- machine instructions, instruction formats, addressing modes, instruction cycles; concept of micro- programming; I/O interface

January: Week 2- I/O transfer - program - controlled, interrupt controlled, direct memory access.

January: Week 3- Computer software , types of software - system, application and utility software;

January: Week 4- programming languages; introduction to operating system: types and function of operating system;   Tre

January: Week 5- real time applications; operating systems for tabs, mobile phones, etc.

February: Week 1- Android, etc; open source software:an overview, Linux Ubuntu; concepts of translators, linkers and loader.

February: Week 2- Application software: spreadsheets, word processors, database management software;

February: **Week 3-** networks basic,types of networks, topologies, media, hardware and software required for networking.

February: **Week 4-** Class Test and Revision

Rachita Kansal

Teacher Name: RACHITA KANSAL

Web Designing (Paper-II)

Class: B.SC Comp. Sci.-III (5th SEM)

Planner

Session–(2020-21)

November: Week 1- Introduction to Internet and World Wide Web; Evolution and History of World Wide Web

November: Week 2- Basic Features; Web Browsers; Web Servers

November: Week 3- Hypertext Transfer Protocol; URLs; Searching and Web- Casting Techniques

November: Week 4- Search Engines and Search Tools

December: Week 1- Steps for Developing Website; Choosing the Contents; Home Page; Domain Names

December: Week 2- Internet Service Provider; Planning and Designing Web Site

December: Week 3- Creating a Website; Web Publishing: Hosting Site

December: Week 4- Introduction to HTML; Hypertext and HTML; HTML Document Features

January: Week 1- HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line, Creating Links; Headers; Text Styles

January: Week 2- Text Structuring; Text Colors and Background; Formatting Text

January: Week 3- Page layouts; Insertion of Text, Movement of Text

January: Week 4- Images: Types of Images, Insertion of Image, Movement of Image Ordered and Unordered lists

January: Week 5- Ordered and Unordered lists

February: Week 1- Inserting Graphics; Table Handling Functions like Columns, Rows, Width

February: Week 2- Colours; Frame Creation and Layouts; Working with Forms and Menus;

February: Week 3- Working with Buttons like Radio, Check Box;

February: Week 4- Class Test and Revision

Rachita Kansal

November:Week 1- Internet Basic-Introduction to HTML, Tags-List, Creating table.

November:Week 2-Linking Document frames-Graphics to HTML doc-Style Sheet basic-add style to Document.

November:Week 3- Creating Style sheet rules- Style sheet properties-Font-tet-list.

November:Week 4- Color and Backgground color-Box-Display properties.

December:Week 1-Introduction to Java Script- Advantagesof Java Script syntax.-JavaScript Syntax-Data type-Variable.

December :Week 2- Array-Operator and Expression-looping.

December :Week 3-Constructor-Function-Dialog Box.

December :Week 4-Java Script Document object model-Introduction-Objectin HTML, Event Handling-Window object.

January:Week 1-Document object-Browser Object-Form Object.

January :Week 2- Navigator object screen object-Build in object, Assignments.

January :Week 3- user Defined Objects-Cookies, Test

January :Week 4- Introduction to Java Script- Advantagesof Java Script syntax.-JavaScript Syntax-Data type-Variable
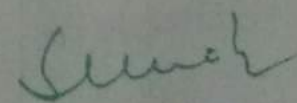
January: Week 5- Java Script Document object model-Introduction-Objectin HTML, Event Handling-Window object.

February:Week 1-Assignments, Navigator object screen object-Build in object.

February :Week 2-Revision

February: Week 3- Class Test

February: Week 4- Revision

November:Week 1- Artificial Intelligence: Intelligence, AI Concepts, various Definitions of AI, knowledge Pyramid, people and Computers.

November:Week 2-.Characteristics of AI problems, Problem Representation in AI.

November:Week 3- Components of AI. AI evolution.

November:Week 4- History of AI, Application Areas of AI.

December:Week 1-The Turing test, The Revised Turing Test.

December :Week 2- Expert System- Components of expert, Knowledge base, Inference Engine, user interface.

December :Week 3- features of Expert system, Expert system life cycle, categories of expert system.

December :Week 4-Advantages of expert system, Testing, Application Areas of expert system.

January:Week 1- AI and Search process: Brute force search- Depth first/Breadth First Search,Heuristic Search.

January :Week 2- AO* algorithm, Beam search, A*.

January :Week 3- Natural Language processing: Introduction, need, Goal, Fundamental *problems in Natural language understanding.*

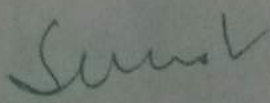**January :Week 4-** Advantages and approaches, Introduction to Robotics: parts of a robot.

January: Week 5- Controlling a robot, Intelligent Robots, mobile robots.

February:Week 1-Assignments, Hill climbing, Constraint Satisfaction.

February :Week 2-Mean end analysis, Best first Search.

February: Week 3- Class Test

February: Week 4- Revision

Teacher Name:Ramandeep Kaur

Data Structures (BCA-232)

Class:BCA-II(3rd sem.)

Planner

Session–(2020-21)

November:Week 1- Introduction: elementary data organization, Data Structure Definition, data type vs Data structure, Categories of data structures.

November:Week 2- Data Structure Operations, Applications of data structures.

November:Week 3- Algorithms complexity and time-space tradeoff, Big-O notation, Strings, String Operations.

November:Week 4- Pattern Matching Algorithms.

December:Week 1-Arrays: Introduction, Linear Arrays, Representation of linear array in memory., Traversal, Insertion.

December :Week 2- Deletion in array, multidimensional arrays, parallel arrays, Sparce matrics.

December :Week 3-Linked list –Array vs Linked list, Representation of linked list in memory. Traversal, Insertion, Deletion, Searching in a linked list.

December :Week 4-Header linked list, Circular linked list, two way linked list. Applications of Linked list.

January:Week 1- Stack , array and linked representation of Stacks, operations on Stacks.

January :Week 2- Applications of Stacks: polish Notation, recursion.

*January :Week 3-*Queues , Array and Linked represenation of Queues, operations on Queues.

January :Week 4- Deques, Priority Queues

.**January: Week 5-** Applications of Queues., Class Test.

February:Week 1-TreeIntroduction, Definition, Representing Binary tree in memory., Traversing binary tree with Algorithm using stack.,Assignments.

February :Week 2-Graph , Graph theory terminology, sequential and linked representation of Graph.

February: Week 3- Class Test

February: Week 4- Revision

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

Teacher Name:Ramandeep Kaur

Data Structure (BC(voc)-305)

Class:B.com-II(3ʳᵈ sem.)

Planner

Session–(2020-21)

November:Week 1- Introduction: Data Structure Definition, linear and least structures.array Definition.

November:Week 2- Type, Address calculation, Stack push/Pop Algorithms.

November:Week 3- Applications of Stack.

November:Week 4- Queue Insert/Delete algorithm., Double queue.

December:Week 1-Circular Queue with algorithm.

December :Week 2- Linked list, Class test

December :Week 3-linked list Algorithm and Double linked list with algorithm.

December :Week 4-Header linked list, Circular linked list, two way linked list. Applications of Linked list.

January:Week 1- B-tree Concept, Assignments

January :Week 2-Files-Serial, sequential, indexed.

January :Week 3- Direct, multilist.
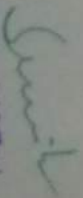
January :Week 4- Deques, Priority Queues

January: Week 5- Applications of Queues., Class Test.

February:Week 1- Files types in Detail.

February :Week 2- Assignments, Revision

February: Week 3- Class Test

February: Week 4- Revision

Principal (Offg.)
Arya Kanya Mahavidyalya
Shahabad Markanda

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November:Week 2- Data Structure Operations, Applications of data structures.

November:Week 3- Algorithms complexity and time-space tradeoff, Big-O notation. Strings, String Operations.

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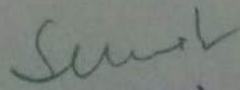
January: Week 5- Applications of Queues., Class Test.

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February: Week 4- Revision

LESSON PLANS

(Odd Semester – 2020 – 21):

Teacher: Ritu Mittal, Dept. Comp. Sc. (Total 06 papers)

Month	Week-1	Week-2	Week-3	Week-4
BCA – Sem-1 – Comp. & Prg. Fundamentals (BCA-111)				
Nov	Definition Block Diagram.	Classification of computers. Appl. of Computers	Primary memory RAM, ROM types.	Secondary Storage devices & its Types.
Dec	I/O Devices **Assignment-1**	S/W & its types. **Class Test**	Intro. To Operating Sys.	OS types – multiprg, multitasking, real time, timesharing, etc.
Jan	Problem solving, Definition, Prg. Design, debugging. **Sessional Test**	Flowcharting, algorithms, pseudo code, decision table,	Structured Programming, Top-down and Bottom-up programming.	Computer Virus, WORMS, Trojan. **Assignment-2**
Feb	*Revision-1* Computer Languages: m/c language, Assembly Language,	High-Level Language, Language Translators, Characteristics of a good programming language. **Class Test**	Searching, Sorting and Merging techniques.	*Final Revision*
BCA – Sem-3 - Fundamentals of Database Sys. (BCA-235)				
Nov	Data, Information, Records and files. Traditional file-based systems-File Based Approach-Limitations of File Based Approach,	Database Approach-Characteristics of Database Approach, Database Management System (DBMS),	Components of DBMS Environment, DBMS Functions and Components, Advantages and Disadvantages of DBMS	Roles in the Database Environment - Data and DBA, Database Designers, Applications Developers and Users.
Dec	Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances,	Logical and Physical Data Independence. **Assignment-1**	Revision-1 **Class test**	Centralized and Client Server architecture to DBMS.
Jan	Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling,	ER Model – Entity Types, Entity Sets, Attributes Relationship Types, Instances and ER diagrams **Sessional test**	Relational Data Model - Terminology, Properties, Keys, Domains, Integrity Constraints.	Base Tables and Views. **Assignment-2**
Feb	Basic Concepts of Hierarchical and Network Data Model.	Revision Class Test	Queries. Quiz n Complete Revision	

Principal (Offg.)
Arya Kanya Mahavidyaly,
Shahabad Markanda

Month	Week-1	Week-2	Week-3	Week-4
B.Sc. C.Sc.– Sem-1 – Comp. & Prg. Fundamentals				
Nov	Definition Block Diagram.	Classification of computers. Appl. of Computers	Primary memory RAM, ROM types.	Secondary Storage devices & its Types. **Class test**
Dec	I/O Devices **Assignment-1**	S/W & its types.	Intro. To Operating Sys. **Class Test**	OS types – multiprg, multitasking, real time, timesharing, etc.
Jan	Problem solving, Definition, Prg. Design, debugging.	Flowcharting, algorithms, pseudo code, decision table. **Assignment-2**	Structured Programming, Top-down and Bottom-up programming.	*Revision Week* **Sessional Test**
Feb	Computer Languages: m/c language, Assembly Language,	High-Level Language,Language Translators, Characteristics of a good programming language.	Searching, Sorting and Merging techniques.	*Final Revision*
B.Sc. C.Sc. – Sem-5 - Fundamentals of Database Sys.				
Nov	Data, Information, Records and files. Traditional file-based systems-File Based Approach-Limitations of File Based Approach,	Database Approach-Characteristics of Database Approach, Database Management System (DBMS),	Components of DBMS Environment, DBMS Functions and Components, Advantages and Disadvantages of DBMS	Roles in the Database Environment - Data and DBA, Database Designers, Applications Developers and Users.
Dec	Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances,	Logical and Physical Data Independence. **Assignment-1**	Revision-1 **Class test**	Centralized and Client Server architecture to DBMS . **Assignment-2**.
Jan	Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling,	ER Model – Entity Types, Entity Sets, Attributes Relationship Types, Instances and ER diagrams **Sessional test**	Relational Data Model - Terminology, Properties, Keys, Domains, Integrity Constraints.	Repeat RDBMS Concepts. **Class Test**
Feb	Base Tables and Views.	Revision	Queries. Quiz n Complete Revision	

Principal (Offg.)
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Month	Week-1	Week-2	Week-3	Week-4
B. Com. CBV – Sem-3 – DBMS				
Nov	Elements of data-base system. Advantages of DBMS, types of database users, role of DBA.	DBMS and its Architecture	Relational model (relations, propertiesof relational model, keys and integrity rules)	Brief overview of hierarchical and network model. **Assignment-1**
Dec	E-R diagrams. **Class test**	Normalization – Functional and Transitive Dependencies	1NF, 2NF, 3NF and BCNF	Database objects: terminologies- tables, views, materialized views, indexes, triggers;
Jan	Functions, procedures and packages; create operator, create directory, create library, database links	SQL: methods to access SQL plan; DDL, describe command. **Sessional test.**	DML, joining tables; break clause. **Assignment-2**	Oracle service: terminology;
Feb	Oracle- Architecture and background support processes	role of DBA, applications of ORACLE in business.	**Class Test** Revision	Revision
B.Sc. FD – Sem-1 – Basics of Computer				
Nov	Introduction to Computer: Data, Processing, information	Classification and evaluations of computers. Configurations of computers.	Factor, Raster and Vector Data and image processing.	Comp. H/W – Block Diagram **Assignment-1**
Dec	CPU, Main Memory, Secondary Memory	I/O Devices. **Class test.**	Operation System (OS) Basic Concepts	MS – DOS / Windows 9X/ NT or system management
Jan	Word Processing, Spreadsheets & charts, Presentations **Assignment-2**	Computer Applications in various fields of Fashion Industry, Fashion Communication through Digital Techniques.	Fashion Photography, Latest Scanners. **Sessional Test.**	Current Trends: Latest net explorers installation, configuration and applications, Search engines
Feb	Computer Operations – Hardware and Software, Understanding OS and Basic System Management, Trouble Shooting operations.	Word processing software, preparation, saving and printing of text documents	Revision	Revision

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