Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs.Preeti	
Class and Section:	**MSC (computer science)**
Subject:	**COMPUTER GRAPHICS**
Paper:	**17MCS23DA3**
Year/Semester:	**2nd year/3rd semester.**

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	Overview of Computer Graphics: Computer Graphics and Its Types, Applications of Computer Graphics;
October (Week-3)	CRT (Random-Scan and Raster Scan Monitor), Color CRT Monitors, Refresh CRT and Interlacing; Ppt represent on CRT
October (Week-4)	DVST, Emissive and Non- Emissive Display devices; Hard copy devices; Graphics Software Standards.
November (Week-1)	Scan Conversion: Scan Converting a Point, Line: Slope Method,

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	DDA and Bresenham's Algorithm, Circle: Mid Point and Bresenham's Algorithm, Anti- aliasing.
November (Week-3)	2-D Graphics Transformations: Rotations, Scaling, Translation.
November (Week-4)	Reflection, Shearing; Homogeneous coordinates: Need.

December (Week-1)	**Transformations in Homogeneous Coordinates. Composite Transformation.**

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	**Polygon Filling: Scan-Line Polygon Fill Algorithm, Inside-Outside tests, Boundary-Fill Algorithm, Flood Fill Algorithm, Cell Array, Character Generation.**
December (Week-3)	**Assignment work, ppt represent by student.**
December (Week-4)	**Two-Dimensional Viewing: The Viewing Pipeline, Window to View port coordinate transformation.**
January (Week-1)	**Point Clipping, Line Clipping.**

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	**Polygon Clipping for convex and concave polygons, Text Clipping, Exterior Clipping.**
January (Week-3)	**Interactive Picture-Construction Techniques: Basic Positioning Method, Constraints, Grids.**
January (Week-4)	**Gravity field, Rubber Band Methods, Dragging, Painting and Drawing.**
February (Week-1)	**Three–Dimensional Concepts: Three Dimensional Display Methods: Parallel Projection.**

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	**Perspective Projection; 3D Transformations: Translation,**
February (Week-3)	**Rotation & Scaling. Applications of 3D graphics.**
February (Week-4)	**Book Revise.**

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs. Kavita
Class and Section: M.Sc 2nd year
Subject: Operating System and Unix
Paper: 17MCS23C1
Year/Semester: 2nd year/ 3rd sem

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	Operating systems overview: Operating systems as an extended machine & resource manager, Operating systems classification;
October (Week-3)	Operating systems and system calls; Operating systems architecture. Process Management functions: Process model, hierarchies, and implementation;
October (Week-4)	Process states and transitions; multi-programming, multi-tasking,
November (Week-1)	Multi-threading; level of schedulers and scheduling algorithms. Presentation on Operating System by Smart Board

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	Memory Management and Virtual Memory : Logical versus Physical Address Space
November (Week-3)	Swapping, Contiguous Allocation, Paging, Segmentation,
November (Week-4)	Segmentation with Paging, Demand Paging, Performance of Demanding Paging

December (Week-1)	Page Replacement, Page Replacement Algorithm, Allocation of Frames, Thrashing. Assignment on memory allocation

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	Device Management functions: I/O devices and controllers, interrupt handlers,
December (Week-3)	Types of I/O Software: Device independent I/O software, User-space I/O software,
December (Week-4)	Terminal I/O software. Disk scheduling. File management functions: file naming, structure, types, access mechanisms, attributes and operations;
January (Week-1)	Directory structures and directory operations; file space allocations; file sharing, file locking. Test

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	Symbolic links; file protection and security: distributed file systems.
January (Week-3)	Concurrent programming: sequential and concurrent process; precedence graph
January (Week-4)	Bernsterins condition; time dependency and critical code section,
February (Week-1)	Mutual exclusion problem ,classical process coordination problems.

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	Deadlock handling, inter-process communication. Assignment on Deadlock Handling.
February (Week-3)	Unix Operating System: Overview of UNIX OS in general and implementation of all above functions in Unix Operating System
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:	**MSC(computer science)**
Subject:	**ANALYSIS AND DESIGN OF ALGORITHMS**
Paper:	**17MCS24DA2**
Year/Semester:	**2nd year /4th semester**

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Sets and disjoint sets, union, sorting .
March(Week-4)	Searching algorithms and their analysis in terms of space and time complexity.
April (Week-1)	Divide and Conquer: General method, binary search, merge sort.
April (Week-2)	Quick sort, selection sort, Strassen's matrix multiplication algorithms and analysis of algorithms for these problems.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Greedy Method: General method, Knapsack problem, Job sequencing with deadlines, Minimum spanning trees.

April (Week-4)	**Prim's and Kruskal's algorithms, Single source paths- Dijkastra algorithms and analysis of these problems.**
May(Week-1)	**Dynamic Programming: General method, Optimal binary search trees.**
May (Week-2)	**0/1 Knapsack, Traveling Salesperson Problem.**

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	**Assignment work.** **Back Tracking: General method, 8 Queen's Problem, Graph coloring.**
May (Week-4)	**Hamiltonian cycles and analysis of these problems.**
June (Week-1)	**Branch and Bound: Method, 0/1 Knapsack and Traveling Salesperson Problem, efficiency considerations.**
June (Week-2)	**Group discussion ,Test** **NP Hard and NP Complete Problems.**

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	**Basic concepts, Cook's theorem, NP hard graph and NP scheduling problems some simplified NP hard problems.**
June (Week-4)	**Advanced data structures: Red-Black trees, B-trees, Fibonacci Heaps.**
July (Week-1)	**Book Revise.**

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs. Preeti	
Class and Section:	**MSC(computer science)**
Subject:	**JAVA PROGRAMMING**
Paper:	**17MCS24C1**
Year/Semester:	**2nd year/4th semester**

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Introduction: Java History, Java features Java and Internet, Java and World Wide Web, Java Program Structure, Java Tokens, Java Virtual Machine.
March(Week-4)	Data Types, Operators and Expressions, Decision Making and Branching, looping Classes and Methods.
April (Week-1)	Inheritance: Using Existing Classes, Class Inheritance, Choosing Base Class, Access Attributes, types of Inheritance.
April (Week-2)	Abstract Classes, Using Final Modifier. Polymorphism: Types of polymorphism. Packages & Interfaces: Understanding Packages.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Defining a Package, Packaging up Your Classes, Adding Classes from a Package to Your Program.
April (Week-4)	Understanding CLASSPATH, Access Protection in Packages, Concept of Interface. Exception Handling: Types of Exceptions, Dealing with Exceptions, Exception Objects.
May(Week-1)	Multithreading Programming: Understanding Threads, The Main Thread, Creating a Thread, Creating.

May (Week-2)	**Multiple Threads, Thread Priorities, Synchronization, Deadlocks Inter-thread communication.**

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	**Input/Output in Java: I/O Basic, Byte and Character Structures, I/O Classes, Reading Console. Creating Applets in Java: Applet Basics.**
May (Week-4)	**Applet Architecture, Applet Life Cycle, Simple Applet Display Methods, Requesting Repainting.**
June (Week-1)	**Using The Status Window, The HTML APPLET Tag Passing Parameters to Applets.**
June (Week-2)	**AWT: Working with AWT Controls, AWT Classes, Window Fundamentals, Working with Frame.**

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	**Creating a Frame Window in an Applet, Displaying Information Within a Window**
June (Week-4)	**Working with Graph: Working with Graphics, Working with Color, Setting the Paint Mode.**
July (Week-1)	**Working with Fonts, Exploring Text and Graphics, Layout Managers and Menus.**

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Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Mrs. Kavita
Class and Section: M.sc Computer Science
Subject: INTERNET AND WEB DESIGNING
Paper: 17MCS24DB1
Year/Semester: 2nd year /4th sem

16 March 2021 to 15 April 2021

Month/Week	Topic
March(Week-3)	Internet, Evolution of Internet, Types of Computer Network: LAN, WAN, MAN Internet Protocol, Internet Services, WWW, Working of Internet, Introduction to Intranet, DNS working
March(Week-4)	Configuring Internet Connect ion, Internet Connect ion Concepts, Connecting LAN to Internet; Client-Server environment: Single User, Multi User, Server, Workstation
April (Week-1)	Computer Network; Network Topologies; Network Protocols, E-Mail Concepts – Configuring E-Mail Program
April (Week-2)	Sending and Receiving Files through E-Mail Fighting Spam, Sorting Mail, E-Mail mailing lists and avoiding E-Mail viruses.

16 April 2021 to 15 May 2021

Month/Week	Topic
April (Week-3)	Searching and Web Casting Technique: Popular web servers, Web Browsers; basic features of browsers:;,
April (Week-4)	Bookmarks, cookies, progress indicators, customization of browsers, browsing tricks, next generation web browsing, search engines
May(Week-1)	Hypertext Transfer Protocol (HTTP), URL. Internet Tools: Online Chatting, Messaging, and Conferencing Concepts, Usenet newsgroup concepts: Reading use net newsgroups, Instant messaging
May (Week-2)	Web-Based chat rooms and discussion boards, Voice and Video conferencing. Streamlining Browsing, Keeping track of Favorite Web Sites, Web Security, Privacy, and Site-Blocking.

16 May 2021 to 15 June. 2021

Month/Week	Topic
May (Week-3)	Web Designing using HTML: Understanding HTML, XHTML Syntax and Semantics,
May (Week-4)	HTML Elements: Paragraph, Lists, Tables, Images, Frames, Forms, Linking to other Web Pages: External and Internal linking
June (Week-1)	E-mail Links; Working with Background colors and Images; Marquee; Text Alignment and Text Formatting, Advanced Layout with Tables; Publishing HTML Pages.
June (Week-2)	Cascading Style Sheets: Introduction, Inline, Internal, External CSS, Linking CSS to Web Page. Client–Side Programming:

16 June 2021 to 06 July 2021

Month/Week	Topic
June (Week-3)	Introduction to JavaScript, Basic Syntax, Variables and Data types, Statements, Operators, Literals, Functions, Objects, Arrays. XML: Relation between XML and HTML, Goals of XML,
June (Week-4)	Structure and Syntax of XML, Well Formed XML, DTD and its Structure, tree structures in data organization, Searching with X Path.
July (Week-1)	Book Revision

Kanya Mahavidyalaya, Kharkhoda (Sonepat)

Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Dr. Ramesh Saini
Class and Section: M. Sc. 3rd Sem.
Subject: Management Information System
Paper: MIS
Year/Semester: 3rd

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	**Evolution of MIS:** Concepts, framework for understanding and designing MIS in an Organization.
October (Week-3)	**Organization and Information Systems:** The Organization: Structure, Managers and activities
October (Week-4)	Data, information and its attributes , The level of people and their information needs
November (Week-1)	Types of Decisions and information , Information System, categorization of information on the basis of nature and characteristics.

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	**Kinds Of Information Systems:** Transaction Processing System (TPS), Office Automation System (OAS)
November (Week-3)	Management Information System (MIS), Decision Support System (DSS)

November (Week-4)	Group Decision Support System (GDSS)
December (Week-1)	Expert System (ES), Executive Support System (EIS or ESS).

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	**Manufacturing and Service Systems**: Information systems for Accounting, Finance
December (Week-3)	Production and Manufacturing, Marketing and HRM functions - IS in hospital, hotel, bank.
December (Week-4)	**Enterprise System**: Enterprise Resources Planning (ERP): Features selection criteria, merits, issues and challenges in Implementation
January (Week-1)	Supply Chain Management (SCM): Features, Modules in SCM - Customer Relationship Management (CRM): Phases.

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	**Choice of IT:** Nature of IT decision; Strategic decision; Configuration design and evaluation Information technology implementation plan.
January (Week-3)	**Security and Ethical Challenges**: Ethical responsibilities of Business Professionals – Business, technology.
January (Week-4)	Computer crime – Hacking, cyber theft, unauthorized use at work. Piracy – software and intellectual property.
February (Week-1)	Privacy – Issues and the Internet Privacy. Challenges – working condition, individuals. Health and Social Issues, Ergonomics and cyber terrorism.

06 Feb. 2021 to 25 Feb. 2021

Month/Week	Topic
February (Week-2)	Revision

February (Week-3)	Class Test
February (Week-4)	House Examination

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Lesson Plan Session 2020-21

Name of the Assistant/Associate Professor: Dr. Ramesh Saini
Class and Section: M. Sc. 3rd Sem.
Subject: Visual Programming Theory & Practical
Paper: Visual Programming
Year/Semester: 3rd

06 Oct. 2020 to 05 Nov. 2020

Month/Week	Topic
October (Week-2)	**Introduction to Visual Basic**: VB IDE, An overview of VB project types, VB as event-driven & object-based language
October (Week-3)	Default Controls in Tool Box: Label Box, Text Box, Command Button, List Box, Combo Box, Picture & Image Box, Shape box, Timer, Option button, Check Box & Frames.
October (Week-4)	**Programming with VB**: Variables, Constants, Data types, Variable Scope, Arithmetic operations, String Operations
November (Week-1)	Built-in functions, I/O in VB, Branching & Looping statements, Procedures, Arrays, Collection.

06 Nov. 2020 to 05 Dec. 2020

Month/Week	Topic
November (Week-2)	**Working with Forms**: Working with multiple forms; Loading, Showing and Hiding forms; Creating Forms at Run Time
November (Week-3)	Introduction to MDI forms. Dialog Boxes: Types of Dialog boxes, Working with Common Dialog Box.
November (Week-4)	**Menu Manipulation:** Introduction to Menu Editor, Adding

December (Week-1)	Menus and its manipulation: Modifying and Deleting Menu Items, Creating Submenus.

06 Dec. 2020 to 05 Jan. 2021

Month/Week	Topic
December (Week-2)	**Advanced Controls in VB:** Introduction: Scroll Bar, Slider Control, Tree View
December (Week-3)	List View, Rich Text Box Control, Toolbar, Status Bar, Progress Bar
December (Week-4)	Cool bar, Image List, Tab Strip. , **Working with Graphics**
January (Week-1)	Using Paint, Line, Circle, RGB and other related method, manipulating graphics.

05 Jan. 2021 to 06 Feb. 2021

Month/Week	Topic
January (Week-2)	**File Handling in VB:** Creating a File, Saving and Opening files in Rich text box
January (Week-3)	Picture box, Handling file operations. **VB & Databases**: The Data Controls
January (Week-4)	Data-Bound Controls; Using DAO, RDO, ADO., **ActiveX controls**
February (Week-1)	Creating & Using ActiveX Controls, Creating & Using ActiveX Documents, ActiveX EXE vs. ActiveX DLL.

06 Feb. 2021 to 25 Feb. 2021

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