GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)

LESSON-PLAN (Session 2025-26) Odd Semester

Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **BCA – 1st Semester**

Subject/Paper: **Foundations of computers**
Paper Code: **B23-CAP-102 (Common with B23-CAI-101, B23-CDS101,**
B23-CTS-101)

Sr. No.	Month	Week	Topics to be covered	Remarks if any
1.	July	IVth Week	Introduction to Syllabus	
2.	August	Ist Week	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields.	
3.		IInd Week	Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software. Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy. Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.	
4.		IIIrd Week	I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball,	
5.		IVth Week	Joystick, magnetic stripes, scanner, digital camera, and microphone. **Assignment I**	
6.	September	Ist Week	Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot-matrix. Plotter	
7.		IInd Week	Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, **Class Test I**	
8.		IIIrd Week	Status Buttons, Folders, Shortcuts,	

			Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.	
9.		IVth Week	The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet.	
10.	October	Ist Week	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses	
11.		IInd Week	Message components, message composition, and mailer features. Browsers and search engines	
12.		IIIrd Week	**DIWALI VACATIONS**	
13.		IVth Week	Threats: Physical & non-physical threats, Virus, Worm, Trojan,	
14.	November	Ist Week	Spyware, Keylogers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking.	
		IInd week	Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms	
15.		IIIrd Week	Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.	

*Vacation as per university calendar
*Assignments and Class test will be taken as per schedule.

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **BCA – 3RD Semester**

Subject/Paper: **Basics of Data Science Using Excel**
Paper Code: **B23-CAP-304**

Sr. No.	Month	Week	Topics to be covered	Remarks if any
1.	**July**	**IVth Week**	Introduction to Syllabus	
2.	**August**	**Ist Week**	Introduction to Data Science: Definition, importance, and applications. Overview of Excel: Interface, basic functions, and features.	
3.		**IInd Week**	Data Types and Formats in Excel: Text, numbers, dates, and custom formats.	
4.		**IIIrd Week**	Basic Data Manipulation: Sorting, filtering, and basic formulas (SUM, AVERAGE, COUNT).	
5.		**IVth Week**	Data Import and Export: CSV, TXT, and Excel files. Data Cleaning Techniques: Handling missing values, duplicates, and errors. **Assignment I**	
6.	**September**	**Ist Week**	Data Transformation: Text-to-columns, concatenation, and data validation. Data Visualization: Creating and customizing charts (bar, line, pie).	
7.		**IInd Week**	**Revision** **Class Test I**	
8.		**IIIrd Week**	Descriptive Statistics: Mean, median, mode, standard deviation, and variance.	
9.		**IVth Week**	Inferential Statistics: Hypothesis testing, t-tests, and chi-square tests.	
10.	**October**	**Ist Week**	Regression Analysis: Simple linear regression and multiple regression	
11.		**IInd Week**	Predictive Modeling: Introduction to basic predictive models and their implementation in Excel.	
12.		**IIIrd Week**	**DIWALI VACATIONS**	
13.		**IVth Week**	Advanced Excel Functions: VLOOKUP, HLOOKUP, INDEXMATCH,and PivotTables.	
14.	**November**	**Ist Week**	Data Analysis ToolPak: Using Excel's built-in data analysis tools such as Descriptive Statistics, Histograms, Correlation, and Regression.	

		IInd week	What-If Analysis Tools: Scenario Manager, Goal Seek, and Data Tables.	
15.		IIIrd Week	**Revison**	

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **BCA – 5th Semester**
Subject/Paper: **Software Engineering**
Paper Code: **B23-CAP-501**

Sr. No.	Month	Week	Topics to be covered	Remarks if any
1.	**July**	**IVth Week**	Introduction to Syllabus	
2.	**August**	**Ist Week**	Introduction: Program vs. Software, Software Engineering, Programming paradigms, Software Crisis – problem and causes,	
3.		**IInd Week**	Phases in Software development: Requirement Analysis, Software Design, Coding, Testing, Maintenance,	
4.		**IIIrd Week**	Software Development Process Models: Waterfall, Prototype, Evolutionary and Spiral models, Role of Metrics.	
5.		**IVth Week**	Feasibility Study, Software Requirement Analysis and Specifications: SRS, Need for SRS, Characteristics of an SRS, Components of an SRS, **Assignment I**	
6.	**September**	**Ist Week**	Problem Analysis, Information gathering tools, Requirement specification, validation and metrics.	
7.		**IInd Week**	Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table, Decision trees, Structured English, Entity-Relationship diagrams **Class Test I**	
8.		**IIIrd Week**	Software Project Planning: Cost estimation: COCOMO model, Project scheduling, Staffing, and personnel planning, team structure,	
9.		**IVth Week**	Software configuration management, Quality assurance plans, Project monitoring plans, Risk Management.	
10.	**October**	**Ist Week**	Software Design: Design fundamentals, problem partitioning, and abstraction, design methodology, Cohesion & Coupling.	
11.		**IInd Week**	Software testing strategies: unit testing, integration testing, Validation testing, System testing, Alpha and Beta testing.	
12.		**IIIrd Week**	**DIWALI VACATIONS**	
13.		**IVth Week**	Software Maintenance: Type of maintenance, Management of Maintenance, Maintenance Process, maintenance characteristics.	

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14.	November	Ist Week	UNIT-1 PRESENTATIONS BY STUDENTS	
		IInd week	UNIT-2 AND 3 PRESENTATIONS BY STUDENTS	
15.		IIIrd Week	UNIT-4 PRESENTATIONS BY STUDENTS	

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **BCA +BSC 1st Semester**
Subject/Paper: **Office and spreadsheet learning tools**
Paper Code: **B23-SEC-101**

Sr. No.	Month	Week	Topics to be covered	Remarks if any
1.	July	IVth Week	Introduction to Syllabus	
2.	August	Ist Week	Operating System - Definition, Functions, Types of Operating System, Basics of Popular Operating Systems, The User Interface,	
3.		IInd Week	Exploring Computer, Icons, taskbar, desktop, Using Menu and Menu selection, managing files and folders,	
4.		IIIrd Week	Control panel – display properties, add/remove software and hardware, Common utilities	
5.		IVth Week	Word Processing - Introduction to Word Processing, Menus, Creating, Editing & Formatting Document, **Assignment I**	
6.	September	Ist Week	Spell Checking, Printing, Views, Tables, Word Art, Mail Merge, Macros,	
7.		IInd Week	Inserting hyperlinks, Searching for text, Modifying page setup, Applying document themes, Applying document style sets, Inserting headers and footers. **Class Test I**	
8.		IIIrd Week	Spread Sheet: Elements of Electronics Spread Sheet, Applications, Creating and Opening of Spread Sheet	
9.		IVth Week	Menus, Manipulation of cells: Enter texts numbers and dates, Cell Height and Widths, Copying of cells, Mathematical, Statistical and Financial function	
10.	October	Ist Week	Drawing different types of charts, Sort and Filter Data.	
11.		IInd Week	Presentation Software: Creating, Modifying and enhancing a presentation,	
12.		IIIrd Week	**DIWALI VACATIONS**	
13.		IVth Week	Type of presentation views, Using sound, Animation, Working with Objects, Printing. **Presentations of unit 1 by students.**	
14.	November	Ist Week	**Presentations of unit 2 by students.**	
		IInd week	**Presentations of unit 3 by students.**	

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15.		IIIrd Week	Presentations of unit 4 by students.	

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GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)

Name of Asst Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.A 1ˢᵗ Semester**
Subject/Paper: **Office and spreadsheet learning tools**
Paper Code: **B23-SEC-101**

Sr. No.	Month	Week	Topics to be covered	Remarks if any
1.	July	IVᵗʰ Week	Introduction to Syllabus	
2.	August	Iˢᵗ Week	Operating System - Definition, Functions, Types of Operating System, Basics of Popular Operating Systems, The User Interface,	
3.		IIⁿᵈ Week	Exploring Computer, Icons, taskbar, desktop, Using Menu and Menu selection, managing files and folders,	
4.		IIIʳᵈ Week	Control panel – display properties, add/remove software and hardware, Common utilities	
5.		IVᵗʰ Week	Word Processing - Introduction to Word Processing, Menus, Creating, Editing & Formatting Document, **Assignment I**	
6.	September	Iˢᵗ Week	Spell Checking, Printing, Views, Tables, Word Art, Mail Merge, Macros,	
7.		IIⁿᵈ Week	Inserting hyperlinks, Searching for text, Modifying page setup, Applying document themes, Applying document style sets, Inserting headers and footers. **Class Test I**	
8.		IIIʳᵈ Week	Spread Sheet: Elements of Electronics Spread Sheet, Applications, Creating and Opening of Spread Sheet	
9.		IVᵗʰ Week	Menus, Manipulation of cells: Enter texts numbers and dates, Cell Height and Widths, Copying of cells, Mathematical, Statistical and Financial function	
10.	October	Iˢᵗ Week	Drawing different types of charts, Sort and Filter Data.	
11.		IInd Week	Presentation Software: Creating, Modifying and enhancing a presentation,	
12.		IIIrd Week	**DIWALI VACATIONS**	
13.		IVth Week	Type of presentation views, Using sound, Animation, Working with Objects, Printing. **Presentations of unit 1 by students.**	
14.	November	Ist Week	**Presentations of unit 2 by students.**	

		IInd week	Presentations of unit 3 by students.	
15.		IIIrd Week	Presentations of unit 4 by students.	

*Vacation as per university calendar

*Assignments and Class test will be taken as per schedule.

GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)

Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.A 1ˢᵗ Semester**

Subject/Paper: **Office and spreadsheet learning tools (Practical)**
Paper Code: **B23-SEC-101**

S. NO.	WEEK	PRACTICAL
1	**July**	Operating System: • Starting with basics of Operating Systems and its functionalities
2	**August**	Word Processing: • Create and format word documents. • Use tables, word Art and other features in your documents • Use macros to simplify the tasks in a document. • Use mail merge to write once for many.
3	**September**	Spread Sheet: • Use spreadsheet for basic data handling • Apply formulas to sheet for automation. • Use Charts & Shapes for better visualization of the data. • Use sorting and filtering of the data
4	**October**	Presentation Software: • Prepare and format presentations. • Apply slide transitions, animations and sequencing for slides.
5	**November**	• Apply different formatting and insert options to make presentation better. • Appling sound and animation.

GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)

Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.C.A. and B.SC. 1ˢᵗ Semester**

Subject/Paper: **Office and spreadsheet learning tools (Practical)**
Paper Code: **B23-SEC-101**

S. NO.	WEEK	PRACTICAL
1	**July**	Operating System: • Starting with basics of Operating Systems and its functionalities
2	**August**	Word Processing: • Create and format Word documents. • Use tables, WordArt, and other features in your documents • Use macros to simplify the tasks in a document. • Use mail merge to write once for many.
3	**September**	Spreadsheet: • Use a spreadsheet for basic data handling • Apply formulas to the sheet for automation. • Use charts and shapes for better visualization of the data. • Use sorting and filtering of the data
4	**October**	Presentation Software: • Prepare and format presentations. • Apply slide transitions, animations, and sequencing for slides.
5	**November**	• Apply different formatting and insert options to enhance the presentation. • Applying sound and animation.

GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)

Name of Asst. Professor: Mrs. Pooja
Subject: Computer Science
Class: B.C.A 1st Semester

Subject/Paper: Foundations of Computer Science (Practical)
Paper Code: B23-CAP-102

S. NO.	WEEK	PRACTICAL
1	**July**	Operating System: • Starting with basics of Operating Systems and its functionalities
2	**August**	Computer Basics: • Identify the various computer hardware • Understanding the working of computer • Understanding various types of software
3	**September**	Internet and E-mail: • Using Internet for various tasks • Creating and using e-mail.
4	**October**	Security: • Understanding various threats
5	**November**	• How to be safe from virus threats • Various software to get safe from virus attacks.

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.C.A 1st Semester**

Subject/Paper: **Logical Organization of Computer   (Practical)**
Paper Code: **B23-CAP-103**

S. NO.	WEEK	PRACTICAL
1	**July**	Number System: • Problems based on Number System and their conversion. • Programs based on Number System conversion.
2	**August**	Binary Arithmetic • Problems based on Binary Arithmetic. • Programs based on Binary Arithmetic.
3	**September**	• Problems based on Boolean Expression and their simplification Logic Gates • Understanding working of logic Gates.
4	**October**	Combinatorial Circuits: • Designing and understanding various combinational circuits.
5	**November**	Sequential Circuits: • Designing and understanding various sequential circuits.

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Name of Asst. Professor: **Mrs. Pooja**

Subject: **Computer Science**

Class: **B.C.A 3rd Semester**

Subject/Paper: **Java OOP Foundations (Practical)**

Paper Code: **B23-CAP-301**

S. NO.	WEEK	PRACTICAL
1	**July**	• WAP to find the sum of 10 numbers, entered as a command Line arguments. • WAP to find the area of a rectangle and a circle using the Interface.
2	**August**	• WAP to show the concept of packages. • WAP to handle the Exception using try and multiple catch Blocks and a finally block. • WAP for Implementing Calculator in an Applet, use Appropriate Layout Manager. • Write Applet code to add two integers in the textbox and their The sum should appear in the third textbox.
3	**September**	• Write an AWT program in Java to find the sum and multiplication and the average of three numbers entered in three Text fields by • Clicking the corresponding Labelled Button. The result should appear in the fourth text field.
4	**October**	• Write Applet code to show all the activities of the Mouse using Mouse listener and Mouse Motion listener. • What are the various stream classes in Java? Write Java code to Read a character from a file and write it into another file.
5	**November**	• What are AWT Classes? Write a Java Program to generate Even Numbers and Odd Numbers in Text Field "T1 and T2 respectively" while pressing Buttons "Even" and "Odd". • Write a program to copy the text from one file to another using a byte stream.

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.C.A 3rd Semester**

Subject/Paper: **Linux and Shell Programming(Practical)**
Paper Code: **B23-CAP-302**

S. NO.	WEEK	PRACTICAL
1	**July**	- Basic Linux command - Basic Shell Programming (Fibonacci Series generation, Factorial of a given number, Checking for Armstrong number)
2	**August**	- Designing an Arithmetic calculator - Generation of Multiplication table
3	**September**	- Base Conversion (Decimal to Binary, Binary to Decimal) - Finding the information about the Login name and File name.
4	**October**	- Write a shell script to exchange the contents of two variables. - Write a shell script, that accepts three subject marks scored by a student and declare the result.
5	**November**	- Write a shell script program to find area of a square, rectangle, circle and triangle. - Write a shell script to print integer numbers from 1 to 20.

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Name of Asst. Professor: **Mrs. Pooja**
Subject: **Computer Science**
Class: **B.C.A 3rd Semester**

Subject/Paper: **Database technologies (Practical)**
Paper Code: **B23-CAP-303**

S. NO.	WEEK	PRACTICAL
1	**July**	Basics of database
2	**August**	Performing various SQL statement. Creating various tables and performing all possible queries based on syllabus.
3	**September**	Understanding relational model concepts
4	**October**	Understanding normalization
5	**November**	Understanding various concepts of databases.