



**Sophia Girls' College (Autonomous),  
Ajmer**



**Department of Computer Science**

**Course Plan**

**Dr. Neha Sharma**



**SOPHIA GIRLS' COLLEGE, AJMER (AUTONOMOUS)**  
**BCA III ( SEMESTER VI) 2021-22**  
**BCA – 605 Internet Tools & Website Development - II**

Max. Marks :75 (50Ext; 25 Int)

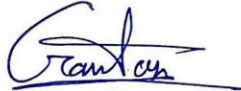
Min. Marks: 30(20 Ext;10 Int)

**COURSE PLAN**

SEM VI Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
JANUARY	<b>UNIT I</b> PHP – Introduction, Common Uses of PHP, Characteristics of PHP, PHP – Environment Setup Installation on Windows, PHP – Syntax, Running PHP Script from Command Prompt PHP – Variable, Local Variables, Global Variables, Static Variables, Constants, Operator Types, Precedence of Operators	Server side Programming and dynamic WebPages	PPT, Programs,E content,blended learning	To impart knowledge server side programming using PHP	<u>Knowledge Based</u>  What is dynamic webpage?  What is precedence of operator?	Knowledge—40 Understanding-40 Higher Order-20
FEBRUARY	<b>Unit – II</b> PHP: Decision Making: If...Else Statement, ElseIf Statement, Switch Statement, Loop Types:, while , do...while, for, for each, break, continue ,	Understanding different sections of Webpage and website development	PPT, Programs, Group discussions	To Develop the decision making statement logic under different concepts using XAMP server	<u>Understanding Based</u> What is nested list? Explain by an example.  Write an HTML code	



MARCH	<b>Unit II</b> Arrays : Numeric Array, Associative Arrays, Multidimensional Arrays, Strings function, Web Concepts, GET and POST, File Inclusion, File & I/O	How JavaScript can be incorporated in HTML document. How to take and process input form then user	PPT, Practical Implementation, Problem solving activities	Design website using both the scripting languages	to divide the webpage into four vertical sections.  <i>Higher Order Thinking Skills Based</i>
APRIL	PHP : Functions, Cookies, Sessions, Sending, File Uploading, Error and Exception Handling, PHP PHP and MySQL: Connecting to MySQL Database, Create MySQL Database Using PHP, Insert MySQL Database Using PHP, Delete Data to MySQL Database, Retrieving Data from MySQL Database	Use of functions and various objects variable in JavaScript Comparison of code without array and with arrays.	PPT, Practical Implementation, assignments	Implement the functions of Date, Math and String objects	Write a code to create a function to take input from user and find its factorial.  Write a code to show use of different math methods.

  
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# SOPHIA GIRL'S COLLEGE, AJMER (AUTONOMOUS)

M.Sc. Computer Science (Previous) 2021-22

SEMESTER II (M.Sc. CS. Previous)

MCS – 202 Computer Graphics

MAX MARKS: 100(70EXT; 30 INT)

MIN. MARKS: 40(28 EXT;12 INT)

## COURSE PLAN

SEM II Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
January	<b>Unit I</b>  Interactive graphics, passive graphics, advantage of interactive graphics, application, Hardware (Video Display Devices: CRT, DVST, Emmissive & Non Emmissive) & software requirement of computer graphics. Raster and random scan system.	Concept of Computer graphics and its terminologies	PPT, Lecture method, Live Examples	Understand the structure of modern computer graphics systems and Input output Device and implement various algorithms to scan, convert the basic geometrical primitives	<u>Knowledge Based</u>  Define Interactive graphic  What is Emmissive display?  <u>Understanding Based</u>	<b>Knowledge— 25</b>  <b>Understanding- 45</b>  <b>Higher Order- 30</b>





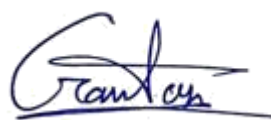
	Algorithm: - Line (DDA algorithm, Bresenham's line algorithm), Circle(Midpoint circle algorithm, Bresenham's line algorithm), Ellipse (Midpoint ellipse algorithm), Area Filling Algorithm (Scan-Line fill, Boundary fill, Flood fill).	Learning of scan line, circle and ellipse generating algorithm			How DDA algorithm is faster than Bresenham's Line algorithm? Justify your answer by using the line attributes.  Give the application areas of CG.
FEBRUARY	Syntax, semantics of propositional logic, syntax and semantics of FOPL, conversion to clausal form.	Logical reasoning and its storage	PPT, Hands on Exercise	Represent knowledge in various ways	<u>Higher Order Thinking Skills Based</u>
	Unit II 2D Transformation and their matrix representation (translation, rotation, scaling, reflection, shearing), General pivot-point rotation,	Concept of transformation and advance concept of transformation	PPT, Hands on Exercise	To define the fundamentals of 2D transformations	Briefly give comparison between different type of transformation.  Explain projection with the help of




	general fix scaling, composite transformation, affine transformations, window-to-view port transformation of 2D.				suitable cube diagram.	
MARCH	Clipping in Raster, point clipping, Line clipping, Cohen-Sutherland Line clipping Algorithm, Cyrus-Beck Line clipping Algorithm, Liang-Barsky Line clipping Algorithm, Polygon clipping, Text Clipping.	Different forms of clipping	PPT	To describe the importance of Clipping, viewing and projections		
	3D display method, Projection (parallel projection, perspective projection), Visible line identification, Visible Surface Detection (Back-face, Painter's Algorithm)	Importance of 3D projection	PPT, Hands on Exercise			



	Polygon (surface, table, equation, meshes), Polynomial and Spline curves, parallel curve algorithms, Splines Representation	Concept of curves	PPT	To learn the basic principles of 3-dimensional transformation along with surface identification and Curves		
APRIL	Cubic Spline (Interpolation, Approximation),	Cubic spline concept and Implementation	PPT			
	Bezier Curves and surfaces, B-Spline and surfaces, Beta-Spline. 3D transformation, rotation, scaling, composite transformation.	3D projection transformation concept	PPT			

  
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