Student Name: University Roll No.:	Printed Pages: 01

School of Engineering
Second Theory Sessional Examination
Odd Semester (AS: 2024-25)

B. Tech: CSE **[Year:III]** **[Semester : V]**

Course Title: COMPUTER GRAPHICS **Course Code: BCS 3505**	**Max Marks: 30** **Time: 1 *hrs***

Instructions: 1-Mention any assumptions made.
2-Notations have usual meaning.

SECTION 'A' **Q.N.1. Attempt all parts of the following:**		**Course Objective**	**Marks**
a)	What are the Application of Computer Graphics?	**CO 2**	**1**
b)	Define the concept of 2D Clipping.	**CO 2**	**1**
c)	What is 2D Shear Transformation?	**CO 2**	**1**
d)	Define Curves and Surfaces.	**CO 3**	**1**
e)	Define the term "Blobby Objects".	**CO 3**	**1**
SECTION 'B' **Q.N.2. Attempt any two parts of the following:**		**Course Objective**	**Marks**
a)	Explain the Purpose of Homogeneous Coordinate Transformation.	**CO 2**	**7.5**
b)	What is Spline Curve?And also explain Interpolation & Approximation Spline Curve.	**CO 3**	**7.5**
c)	Explain the working concept of Cohen Sutherland Line Clipping Algorithm.	**CO 2**	**7.5**
SECTION 'C' **Q.N.3. Attempt any one parts of the following:**		**Course Objective**	**Marks**
a)	A Point **(4; 3)** is Rotated Counter clockwise by an angle of **45°**. Find the Rotation Matrix and the Resultant Points.	**CO 2**	**10**
b)	Explain various types of 2D Clipping within Example.	**CO 2**	**10**
c)	Explain the process of Back-Face Detection Algorithm in Detail.	**CO 3**	**10**

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO2	Q.1a,1b,1c,2a,2c,3a and 3b	38
CO3	Q.1d,1e,2c and 3c	19.5