


Name:			
Enrolment No:			
<b>UPES</b> <b>End Semester Examination, May 2024</b> <b>Course: 3D Complexity Techniques for Graphics Modelling Simulation and Animation.</b> <b>Semester: VIII</b> <b>Program: B.tech CSE All Branches</b> <span style="float: right;"><b>Time : 03 hrs.</b></span> <b>Course Code: CSGG4011</b> <span style="float: right;"><b>Max. Marks: 100</b></span>			
<b>Instructions:</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Define Animation. Mention its various types.	4	CO1
Q2	Define rendering, what is the need for it. Mention some 3d modelling software.	4	CO1
Q3	Consider the animation of a character hitting a cricket ball with bat ? Which mechanism between forward and inverse kinematics would be better for such an animation.	4	CO2
Q4	Differentiate between active and passive animation.	4	CO2
Q5	Mention three open source software which can be used for making animation.	4	CO1
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q6	Describe the advantages or disadvantages of using vector graphics over the raster graphics.	10	CO1
Q7	What are some main reasons for performing a storyboard designing phase before the animation generation?	10	CO2
Q8	Color theory plays a vital role in multimedia industry. Give example to justify this example.	10	CO2
Q9	Write short note on Spline, Mention its various types.  OR  Derive the expression for a cubic Bezier curve.	10	CO2
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			

Q10	<p>Discuss in detail.</p> <ul style="list-style-type: none"> <li>a. Rigging</li> <li>b. Key Framing</li> <li>c. NURBS</li> <li>d. Extrusion</li> <li>e. Motion Capture</li> </ul>	<b>20</b>	<b>CO3</b>
Q11	<p>Consider a situation where a rabbit is uprooting carrots from the farm, at the same time it is looking for the possible dangers around him. Let's assume you have to animate this whole situation, which all animation principles you would be using to make the animation realistic.</p> <p style="text-align: center;">OR</p> <p>Disney has given 12 animation principles for creating effective animation. Is this principle valid for 3d animation as well, if you have to add new animation principles for the 3d animation, do mention those.</p> <p>While answering the question take necessary example.</p>	<b>20</b>	<b>CO3</b>