Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14VC2033** | **Duration :** | **3hrs** |
| **Sub. Name :** | **3D ANIMATION SOFTWARE** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | List the various stages of preproduction for creating a 3D animation and Describe them. | CO1 | 15 |
| b. | Recall the number of vertices a basic cube has when created in Maya. | CO1 | 2 |
| c. | Outline the effect of polygon rounding/Smoothing on 3D object. | CO1 | 3 |
| (OR) | | | | |
| 2. | a. | Describe the importance of having parent child relations between 3D objects. | CO1 | 5 |
| b. | Explain the process of viewport navigation and object transformations in Maya. | CO2 | 10 |
| c. | Describe Bezier Splines and their working using example diagrams. | CO1 | 5 |
|  |  |  |  |
| 3. | a. | Explain the features of a 3D spot light. | CO1 | 5 |
|  | b. | List the various types of cameras and their individual parameters found in maya. | CO2 | 10 |
|  | c. | Explain the steps involved in creating a camera move in MAYA. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | List an example of a Procedurally generated texture. | CO1 | 2 |
|  | b. | Define Diffuse and specular reflections with examples. | CO1 | 6 |
|  | c. | Compare and Contrast appearance and toolset in MAYA, 3D Studio Max and Cinema 4D. | CO3 | 12 |
|  |  |  |  |  |
| 5. | a. | Name the light that mimics sun light? | CO1 | 2 |
|  | b. | List the steps to make an object transparent in Maya. | CO1 | 3 |
|  | c. | List and explain with diagrams and examples the various methods of applying textures on surfaces. | CO1 | 15 |
| (OR) | | | | |
| 6. | a. | Choose the shading model that you would recommend for shading the bench of your class room? Justify | CO3 | 4 |
|  | b. | List the various types of lights and explain the feature set of each type of light. | CO3 | 16 |
|  |  |  |  |  |
| 7. | a. | Define Aim Constraint. Give an application of the aim Constraint in rigging. | CO3 | 5 |
|  | b. | Describe the process of animating objects in maya. | CO3 | 5 |
|  | c. | Elaborate on the working of the graph editor in Maya. | CO1 | 10 |
| (OR) | | | | |
| 8. | a. | Draw a sample rig for your right arm, hand and fingers. Name the parts appropriately. | CO3 | 5 |
|  | b. | List and explain the various types of basic and Advanced Deformations with applications in 3D modeling and animation. | CO2 | 15 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the process of modeling and rigging a human leg in Maya. | CO2,3 | 8 |
|  | b. | List and explain the various Rendering parameters set before rendering a scene in maya. | CO2 | 12 |

ALL THE BEST