Total number of printed pages = 3

19/6th Sem/UMCD 602

2022

COMPUTER GENERATED LIGHTING AND RENDERING

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer any *five* questions.

1. (a) What is C G Lighting ? Describe the co-relation between 3D Lighting and Rendering. 2+8=10

   (b) What are the several types of lights in Maya software ? Describe the various lights setup and their applications with proper diagrams. 2+8=10

2. (a) What is 3-point lighting ? Describe the position of the 3-point light and explain each of their functions. 2+8=10

[Turn over

(b) Is 3-point lighting used for lighting a set ? What statements which need to be examined to determine whether they are yes or no ? 1+9=10

3. (a) Discuss any three various texture maps and its application. How texture maps play significant roles in making a better 3D render scene ? 6+4=10

(b) Discuss the importance of 'Materials' in 3D software ? How *Arnold ai Standard Surface* material is different from Blinn material ? 5+5=10

4. (a) What is *Skydome light* in Maya ? Explain the purpose of *Skydome light* and its importance in lighting. 2+8=10

(b) Explain the differences between Exposure, Samples and Radius in Arnold Light Attributes. 10

5. Write short notes on the following : 5×4=20

(a) Maya Hypershade

(b) Light attributes in Maya

(c) Arnold Atmosphere Volume

(d) Skydome light.

6. What is volumetric light in Maya ? Explain the co-relation between *volumetric light* with *Gobo* (light filter). Why *volumetric light* is important when rendering a 3D environment ? 20