Total number of printed pages: 1 **Programme- UG Semester-6th**

Paper Code- UMCD602

2023

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.

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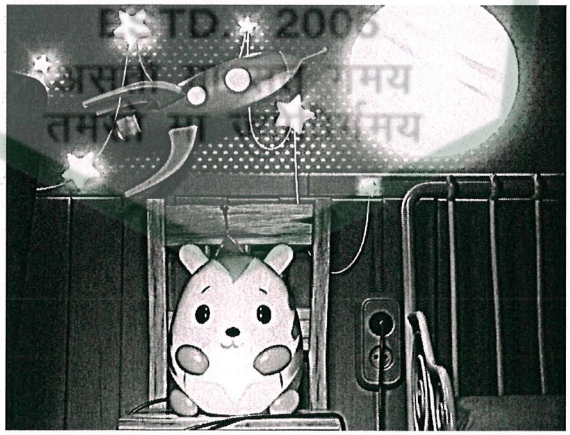
1. **a.** What is *Three-point* lighting? Describe *Three-point* lighting techniques using Maya software. Explain your answer with proper diagrams. 2+6+2=10
   b. Explain different types of *Arnold lights* in Autodesk Maya with proper illustrations. 10

2. **a.** What does *'Atmosphere Volume'* refer to in 3D lighting? Describe how *Atmosphere Volume* relates to *AI Light Decay* and discuss the attributes associated with each. 2+5+3=10
   b. What is *Skydome Light*? Describe the advantage and disadvantages of using *Skydome Light* to create any 3D environment. 2+8= 10

3. **a.** What are the differences between 3D *Lighting* and *Rendering*? 5
   b. Describe the correlation of 3D *texturing* and *lighting*. 5
   c. Explain the function of the *Physical Skye light* in 3D lighting. Describe all the attributes of *Physical Skye light* with proper illustrations. 10

4. **a.** What does the term *'light filter'* refer to in Autodesk Maya? Describe the various light filters and their respective functions in the context of lighting a 3D scene. 2+8= 10
   b. What lights would be necessary/suitable for illuminating below reference image in a 3D scene. To explain your answer, you can replicate the reference image or specific parts of it. 10



Reference image for the question no: 4.b

5. What are the three major steps involved in making a 3D animation movie? Describe the role that a *Lighting Artist* plays in producing better 3D environment. 20

6. Write all the short notes *(Each carrying 5 marks)* 5x4=20
   a. Ai AtmosphereVolume
   b. Light-linking.
   c. Ai Gobo.
   d. Photometric Light.