Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 07

B.Sc. (Graphics & Web Designing) (Sem–5)
LIGHTING AND RENDERING
Subject Code : UGWD1914
M.Code : 90378
Date of Examination : 05-06-2023

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Write briefly :**

   a) What is the real problem of real-world multi-dimensional objects representation in digital systems?

   b) What are lighting techniques in object high lighting?

   c) What is the difference between the camera-model of real-world model?

   d) How a shader tool is used to create virtual real effects?

   e) What do you mean by zero-depth camera projection?

   f) How and why camera-projection depth is increased.

   g) What is lighting and rendering?

   h) Which tool is used to create lighting effects in 3D Maya for object rendering?

   i) Explain in direct lighting and indirect-lighting and how it is different than ambient lighting?

   j) What do you mean by scene-sampling and its quantization for object rendering?

SECTION-B

2. Give detail introduction of Autodesk Maya software and its applications. Give names of important properties of 3D Maya shader in rendering.

3. What are illumination models? Name and discuss important illumination models and their characteristics.

4. What is the role of coordinate systems in rendering, projection and coloring different planes for visualization virtual-real-models?

5. Discuss important six types of lightings available in Autodesk Maya and their light-effects with labelled diagram of each.

6. What is the purpose and significance of 3-point lighting setup? How it is used in a CG projection rendering. Also give its advantages.

7. What are wireframe models? How fast ambient occlusion methods are used in wireframe object model rendering?

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.