

Total No. of Pages: 1

6611

Register Number

Name of the Candidate:

M.Sc. DEGREE EXAMINATION, May 2015

(GRAPHICS AND ANIMATION)

(SECOND YEAR)

220: ADVANCED LIGHTING TECHNIQUES

Time: Three hours

Maximum: 100 marks

SECTION-A

(8×5=40)

Answer any EIGHT questions

1. Write short notes on computer graphics.
2. Distinguish between Direct light and indirect light.
3. What are the different types of lights? Explain any two lights.
4. What is linking and unlinking lights? Explain.
5. What is shadows? Explain how the depth map shadows are added to the scene.
6. Explain the different types of elements uses for shadowing.
7. How will you use global illumination to generate light on surrounding? Explain it.
8. Generate final gathering maps for animation.
9. Discuss about the High Dynamic range image.
10. What are the problems and issues generated by HDRI?

SECTION-B

(3×20=60)

Answer any THREE questions

11. Explain the different types of lights in CG and differentiate between natural lights and CG lights
12. How will you create spot light effects and point light effects using light fog and light glow? Explain.
13. Explain creating, saving and reusing the shadow maps and its attributes.
14. How will you generate photon maps using GI? Explain the mixing of global illumination and final gather in detail.
15. Discuss the following in detail
 - i) Image based lighting techniques
 - ii) Object based lighting
 - iii) Lens shaders
