Lecture 20: Image Based Rendering – Review Questions

• The main idea behind a light field is to know the color for every ray along with one may look in an environment. How do we collect this information? If we know this information, how can we use it to render a scene?

• Light rays require four parameters to represent them. Explain a 4-dimensional parameterization for light rays. How do we sample all of these rays by taking pictures?

• How do we render an image for a new camera viewpoint, given this representation?

• Give some pros and cons of the lightfield approach vs. the other rendering techniques we have seen in class.

• For what types of scenes is image based rendering especially well suited?

• Explain the idea behind Quicktime VR.