Sep 2022 Exam Q4 Part b-3

Transparent textures, also known as alpha textures, are textures used in graphics processing units (GPUs) to create semi-transparent or translucent visual effects.

In computer graphics, textures are images that are applied to the surface of a 3D object to add color, detail, and other visual characteristics. Transparent textures are different from opaque textures in that they have a transparency channel, also known as an alpha channel, that defines the opacity of each pixel in the image.

In a transparent texture, the alpha channel specifies how much of the underlying surface is visible. A value of 0 in the alpha channel indicates complete transparency, while a value of 255 indicates complete opacity. The alpha channel can have any value in between, allowing for semi-transparent or translucent visual effects.

Below is a fragment shader that implements a transparent shader.

Graphical user interface, text, application, chat or text message

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The alpha value of a transparent texture is as the alpha value of the fragment output alpha colour value.

A sphere with transparent shader with a main texture with different transparent texture.

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