Unit 18 after texts exercises

Exercise 1. Complete sentences with the collocations below.Write only letters!

1. The images produced on a computer screen can be printed documents or ….
2. The portions of the display screen … by an electron beam.
3. The brightness of the … fades quickly.
4. Computer graphics has found a … in different spheres of human activities since 1960s.
5. Vector graphics were supplanted by ….
6. Software program enables a computer to process graphic images by means of ….
7. A graphics display screen is a ….

/ a)raster graphics, b)are energized, c)phosphor coated surface, d)animated motion pictures, e)widespread use, f)mathematical language, g)resulting image /.

2.Match the definitions with the words and word expressions. Write only letters!

a)raster graphics, b)animation, c)hidden surface problem, d) image texture, e)filling a shape, f)geometric modeling, g)painting program, h)drawing program, i)API, j)lighting, k)scaling, l)polygon, m)rendering, n)real-time graphics

1….. A sequence of images that, when displayed quickly one after the other, will produce the impression of continuous motion or change. This term also refers to the process of creating such image sequences.

2….. Drawing the interior of a shape, by coloring the pixels that lie inside the shape. It does not apply to shapes, such as lines, that have no interior.

3…. Pixel-based graphics in which an image is specified by assigning a color to each pixel in a grid of pixels.

4….. A collection of related classes, functions, constants, etc., for performing some task. It is an "interface" in the sense that it can be used without understanding how its functionality is actually implemented.

5…... The problem in 3D graphics of deciding which object is visible at each pixel in an image. When one object is behind another object from the point of view of the viewer, only the front object should appear in the image. A rendering algorithm for 3D graphics must satisfy this constraint.

6….. An image that is applied to a surface as a texture, so that it looks at if the image is "painted" onto the surface.

7…... A computer program for creating images using vector-style graphics, where the user creates the image by specifying shapes that make up the image and their attributes.

8….. Using them in a 3D scene, so that the appearance of objects in the scene can be computed based on the interaction of light with the objects' material properties.

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9…... The process of producing a 2D image from a 3D scene description.

10……. A computer program for creating images using raster-style graphics, where the user creates the image by controlling the colors of each pixel.

11……. A multi-sided shape lying in a plane and specified by a list of points, called its vertices, and made up of the line segments from each point in the list to the next point in the list, plus a line segment from the last point in the list to the first point. All the points are required to lie in the same plane. Sometimes this term includes the interior of the shape as well as its boundary.

12……. The type of computer graphics that is needed for computer animation or other applications where the images must be rendered quickly, at the time when they are viewed. For computer animation, it generally requires the ability to render the scene sixty times per second.

13….. A geometric transform that multiplies each coordinate of a point. It increases or decreases the size of an object, but also moves its points closer to or farther from the origin.

14…... Creating a scene by specifying the geometric objects contained in the scene, together with geometric transforms to be applied to them and attributes that determine their appearance.

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