Given a model of a scene represented as a set of triangles in three-dimensional space defining its surfaces, consider the problem of rendering it on a raster display. Write brief notes on:

(a) the data that would be stored for each triangle; [2 marks]

(b) perspective projection from an arbitrary viewpoint; [5 marks]

(c) clipping the data to a suitable viewing frustrum; [5 marks]

(d) identifying pixels on the screen within a triangle; [3 marks]

(e) resolving hidden surfaces using a z-buffer. [5 marks]