Imagine you have been commissioned to design a system that will help students learn how to test and debug software in a typical classroom situation.

(a) Explain the difference between testing and debugging. [2 marks]

(b) Name four different approaches to testing, giving a brief definition of each. [8 marks]

(c) Prepare a preliminary design, as suited to the inception phase of a project, that could be presented to the client who has commissioned this educational testing application. You should include two different kinds of diagram, so that the client understands the overall structure of the proposed user interaction, and also the kinds of data that will be processed and stored when the system is operational. [10 marks]