Imagine that you are the user interface designer responsible for a system that manages the shutdown of a nuclear power station.

(a) Comment on hazards, risks and reliability. [3 marks]

(b) What special procedures should be followed during design? [3 marks]

(c) There is some debate among the team about whether the operator should be in the control loop. What options are there? [4 marks]

(d) In order to assess alternative options like those in part (c):

(i) How could you estimate the speed of operator action based on a draft interface layout? [4 marks]

(ii) How could you measure the speed of operator action using alternative prototypes? [4 marks]

(iii) How could you estimate the probability of operator error? [2 marks]