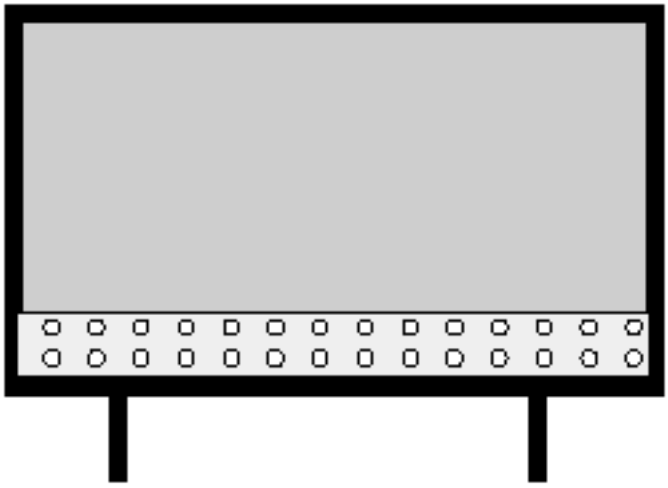
Answer **ALL** of Part I (Qs 1 & 2) and **TWO** Questions from Part II (Qs 3, 4 &5).

Part I

1. Typically a question involving using your analysis and design skills. For example:

Consider the example of an electronic town map in a public car park designed to show the key points of interest in the town. The map contains a number of electronic lights that identify key locations, such as hospitals and libraries. Below the map is a panel containing buttons labelled with the relevant names. Pushing a button on the panel causes a lamp at the related location to light up for 10 seconds.



Assuming that a simple software system is needed to control the operation of the map, define the following:

a. The use case model for the system (actors then use cases);
b. The use case description for selecting a location (basic course only)
c. The problem domain objects and attributes relevant to this use case.

2.

Typically a question from Angela Sasse. See material formerly in B123

Part II

Three questions typically involving a range of information from across the course. For example…

a. Describe the waterfall model of the software development process. What are its advantages and disadvantages?
b. How does this model compare with the evolutionary or staged delivery approach?
c. Why do commercial software engineering organisations pay so much attention to the requirements phase of the "software life-cycle"?
d. A drinks vending machine can dispense coffee with and without milk and sugar. The user deposits a coin and makes a selection by pressing a button on the machine. This causes a cup with powdered coffee to be output. The user places this cup under a tap and presses another button and hot water is dispensed. At any stage the user can cancel and have their money returned. Draw a simple StateChart modelling this vending machine.
e. In a StateChart, what is the effect of a CLEAR HISTORY action?