## System Design

(a) How does a loaded program in a general purpose timesharing computer gain access to input and output streams provided by the operating system?

[5 marks]

- (b) What happens when the program is ready to receive the next data from a keyboard input stream and no key press is ready? [5 marks]
- (c) A CPU intensive program will tend to run for long periods of time without making requests of the operating system. What happens to other users programs when someone runs a CPU intensive program? [5 marks]
- (d) What can be done for a shared output device such as a printer or plotter to ensure civilised results when two or more users try to use it at once? [5 marks]