4 Operating Systems (IML)

(a) What is a page fault? [2 marks]

(b) What is a segment fault? What might be a sensible response to a segment fault on a stack segment? [2 marks]

(c) Describe the actions that follow after a page fault occurs. You should include those performed in hardware prior to a handler being started, and those that are taken within the handler. Your answer should include how segment faults might be detected and handled. [8 marks]

(d) What is page thrashing and how might it be avoided? [4 marks]

(e) Why is handling a page fault more complex than handling an interrupt or software trap? [4 marks]