

COMPUTER SCIENCE TRIPOS Part IA – 2015 – Paper 2

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]