

COMPUTER SCIENCE TRIPOS Part IA – 2020 – Paper 2

6 Software and Security Engineering (rja14)

- (a) What is *fault tree analysis*? [4 marks]
- (b) What is *failure modes and effects analysis*? [4 marks]
- (c) Discuss the likely shortcomings of failure modes and effects analysis with respect to *either* the Therac-25 accidents or the Boeing 737 Max accidents. [6 marks]
- (d) Might the accidents have been avoided if the safety assessment had been based on fault tree analysis instead? [6 marks]