COMPUTER SCIENCE TRIPOS Part IA – 2021 – Paper 2

6 Software and Security Engineering (rja14)

A university has decided to implement a student monitoring system to enforce social distancing during the coronavirus pandemic. It is located in a country that does not expect to vaccinate all its residents until 2023, and the students will be about the last in line. As the budget is limited, the Vice-Chancellor plans to turn on event logging in its existing WiFi access points located in each lecture hall, lab and residence building to monitor that occupant numbers do not exceed notified limits. You may assume that access points can be configured to log network addresses, user logons or both.

- (a) What performance, security and privacy issues might you expect? [7 marks]
- (b) What policies might the Vice-Chancellor enact to manage the associated risks? [7 marks]
- (c) Could you suggest any alternative strategies to the Vice-Chancellor? [6 marks]