# UNIVERSITY OF KENT

# FACULTY OF SCIENCES

# LEVEL 6 EXAMINATION

## SCHOOL OF COMPUTING

**Computing Law and Professional Responsibility**

**Wednesday, 17 May 2017 : 09.30 - 11.30**

The paper contains FIVE questions, TWO in Section A and THREE in Section B. Answer BOTH the questions from Section A and TWO questions from Section B.

Calculators are not permitted.

**Answer each question in a separate book.**

Stationery: White Answer Booklet x 4

## SECTION A
*Answer BOTH questions from this section.*

1. (a) (i) Give one concrete example of processing of personal data that constitutes fair processing. [2 marks]

   (ii) Give two concrete examples of processing of personal data that do *not* constitute fair processing. Explain why. [8 marks]

   (b) It is illegal to initiate a distributed denial of service attack from the UK. Which law ensures this, and how? What would the legal consequences be for someone initiating such an attack? [10 marks]

   (c) Discuss briefly points for and against: "The use of Facebook is the end of privacy". [10 marks]

   (d) Discuss briefly points for and against: "Software providing computer security should be open source". [10 marks]

2. The Panama papers: millions of papers from the Panama based law firm *Mossack Fonseca* were leaked to the German newspaper *Süddeutsche Zeitung*. This provided a lot of insight into the links between, and ownership of, many off-shore companies and shell companies, possibly involved in tax evasion.

   If this had come from the London office of *Mossack Fonseca*, would this have counted as protected disclosure under the Public Interest Disclosure Act? Why (not)? [10 marks]

**SECTION B**

*Answer exactly TWO questions from this section.*

3  (a)  Musician, Mick Stagger and his musician girlfriend, Taylor Maid, are in Canterbury attending the graduation of Mick's son, a computer student. A graduation party for computer students is being held in the campus nightclub.

Entertainment is being provided by a band made up of 4 computer students, known as the Green Hat Hackers. The band play a mix of popular songs and parodies of popular songs.

When Mick and Taylor enter the club, they notice the club has a prominent logo of an open mouth with a tongue sticking out. Mick thinks this is very similar to a logo his band have used regularly on their album covers and at concerts.

When the Green Hat Hackers play their set one of the songs is entitled, 'Can't get no satisfaction in the Computer School', a song which parodies one of Mick's big hits.

The band then play a song called, 'Let's Sing Together', which Taylor is amazed to hear as it will be her latest single, but has not yet been released to the public.

Both Mick and Taylor are notoriously protective of their intellectual property rights.

Advise them as to whether any of their intellectual property rights may have been infringed.                                    [15 marks]

(b)  Identify and briefly discuss the benefits for computer students in studying Ethics and possessing an appreciation of it.        [10 marks]

**turn over**

4. For a variety of reasons, a case could be made that the 2016 American election was won through cyber security and privacy related issues:

- Democrats' mail servers were hacked, possibly with involvement from a foreign state, and messages were leaked to the public and law enforcement.

- Voters were deceived with "fake news" which was generated and targeted on the basis of advanced social media profiling techniques.

- Machines used for voting and counting votes had not been audited and verified to the highest standards, and as a consequence the election outcome could have been incorrect.

Would it be possible for something similar to happen in the next UK election? Choose *one* of the three issues above, describe and analyse it in more detail, discussing whether and how it really could have made a difference, and whether and how it could be avoided through existing or newly introduced measures. Consider legal and technical dimensions, and where appropriate also social or ethical ones. [25 marks]

5. DeepMind is an Artificial Intelligence company that was acquired by Alphabet (i.e. Google) in 2014. Google had long been asking for the world's medical data, as they were expecting that their analysis of such data could bring massive advances in the treatments of many diseases including cancer.

In 2015, two London hospitals started sharing data with DeepMind to help with the early diagnosis of kidney failure. The data shared was broad medical data on everyone who had attended these hospitals in the last five years.

Discuss the possible benefits and risks associated with the data sharing as described.

(The description of the scenario has been simplified, so in reality many, though not all, of the potential risks that you might identify are already being mitigated.) [25 marks]