# UNIVERSITY OF KENT

## FACULTY OF SCIENCES

## LEVEL 6 EXAMINATION

### SCHOOL OF COMPUTING

**Computing Law and Professional Responsibility**

**Wednesday, 15 May 2019 : 14.00 - 16.00**

The paper contains FOUR questions. Answer THREE questions.

Calculators are not permitted.

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

Stationery: White Answer Booklet x 3

**Student IS permitted to remove question paper from examination venue**

1. (a) What types of intellectual property does ‘copyright’ protect? [3 marks]

   (b) Explain what is meant by ‘fair dealing’ and give two examples of fair dealing defences. [6 marks]

   (c) Identify and explain the four moral rights that exist under Copyright, Designs and Patents Act. [8 marks]

   (d) Governments around the world have progressively increased the duration of copyright protection, delaying the entry of protected works into the public domain. Given that copyright was originally intended to incentivise people to create new work, to what extent do these changes to the law help, and to what extent do they hinder this goal? [8 marks]

2. (a) Would it be important for you as a computing professional to obtain a degree that is accredited by a professional organisation, e.g. BCS? Explain your answer. [10 marks]

   (b) Discuss: “In my role as a coder within a software project, it is my professional responsibility to ensure error free code is delivered within the timescale agreed with the customer.” [15 marks]

3. (a) Briefly describe these sub areas of normative ethics: Utilitarianism, virtue-based and deontology. [6 marks]

   (b) Briefly explain three ethical principles of a software engineer according to the IEEE/ACM Code of Ethics. [6 marks]

   (c) Consider the following scenario: A software engineer has been offered a job in a popular technology company that develops professional applications. During the interview, the team leader has described one particular application, which matches employers with potential employees using historic data. While they have explained the exciting new features of their deep learning algorithm, they have failed to mention what could go wrong.

   Discuss the ethical dilemma that the software engineer faces for accepting the job by explaining two potentially contradicting consequences of the application and describe how a utilitarian approach would resolve the dilemma. [13 marks]

4. (a) Explain the difference between weak and strong sustainability and describe an example scenario where weak sustainability would be preferred to strong sustainability (justify your answer). [15 marks]

(b) Explain the fundamental difference between the approaches of the EU and the US for designing privacy laws. [6 marks]

(c) Consider the following scenario: You are working for a company with headquarters in the US developing medical applications. The applications handle sensitive health data of patients from the US as well as the EU.

Name which privacy law/regulation your company would need to comply with in the EU and the US. [4 marks]