Module Title: Professional Issues
Exam Diet (Dec/April/Aug): Specimen 2 2017
 Brief notes on answers:

1. (a) There are two clear concerns [3 marks each]:

    (i). **Public Interest:** there may be significant interest in what appears to be a very wide-reaching collection of personal data.

    (ii). **Duty to Relevant Authority:** There is a clear public interest issue here and this may lead to a conflict between your professional obligations and duty to relevant authority.

   (b) The following are all relevant (but there are alternatives):

    (i). How does the software handle issues of consent since some of this data will be sensitive personal information. This is important because it may be in breach of the DPA.

    (ii). Is there any way of managing where data is exported to from the software? And this might be followed up by asking what jurisdiction the partner company operates in. There are concerns about data moving to less well-protected environments.

    (iii). How long is data retained and what are the criteria for deleting data? This should not be a system that allows unlimited data gathering.

   (c) The impact of GDPR (3 marks each):

    (i). The data portability requirements might pose significant issues because the system may integrate many individuals activity.

    (ii). Explainability of the algorithms that decide on what advertising to show may also be difficult to explain to non-technical person.

   (d) For this application to gain trust two key principles are:

    (i). **Privacy:** That personal data will not be released to third parties without explicit consent. This is essential to ensure trust in the system.

    (ii). **Transparency:** That information flows are clear and how information contributes to the choice of actions. This underpins the ability to explain the operation of the system

2. (a) In this part you should be aiming to provide motivation for the Investigatory Powers Act and similar legislation [3 marks each]:

    (i). Some information on the sorts of crimes and activities the act is intended to prevent. Probably focussing on issues like drug trafficking, or money laundering. Emphasising the need to retain information over long periods in order to identify long term patterns of interaction and anomalous patterns of communication.

    (ii). Something arguing that the pattern of communications is more important than the content and it is rare for security organisations to look into private information

    (iii). Arguing that most of the data is not involved in investigations because it is not relevant. Also perhaps an argument that looks at the loss of liberty versus the gains in controlling criminal behaviour.

(b) Balancing perspectives [3 marks each]:

    (i). How strong is the evidence that this works? Because of secrecy we see claims these approaches work but very little concrete evidence of effectiveness. Often information comes from whistleblowers or insider information. There should be a more accountable framework for surveillance so we can judge effectiveness.

    (ii). We know that many security organisations are opposed to strong encryption on message contents. If they are primarily interested in patterns of communication why is this important?

    (iii). The standard argument here is what if the structure of the state changes and is more authoitarian (either from the left or the right) if we have dismantled presumptions of privacy than what are the potential consequences for individuals.

(c) Here we need two reasons - there are many others:

    (i). **Corruption:** organised crime has the resources to pay key individuals significant sums to avid capture. This can be in the organisations gathering the data or in those that interpret the data.

    (ii). **Technical Competence:** it is clear that many many nations have highly competent cyber operations units associated with their military and security organisations. Competence makes it much harder to detect the operation of these units.

3. (a) In this section I think you can argue that the structure will be bureaucratic for both organisations because they are managing large delivery organisation and they need the clear lines of responsibility and clear routes to promotion to incentivise capable people.

  (b) Three issues each worth three marks:

    (i). There will be difficulties around crossing line management responsibilities. If people are delivering an integrated service there is the need for a senior who can adjudicate conflicts. The problem here is that we are pulling together two different hierarchies and that will be problematic initially.

    (ii). Performance across the two organisations will ave been judged by different metrics. Health typically looking a successful procedures while care looks at softer issues like good quality housing etc. So there will be a need to combine metrics in some way.

    (iii). How to establish the projects that are responsible for working out how to combine the two organisations. Who will be responsible for them what is the reporting line. How are conflicts resolved?

  (c) Deployment of decision support:

    (i). Implementation challenges [3 marks each]:

      A. How to introduce the approach into already established processes - resistance from workers, fears of job loss etc.

      B. How to capture the decision process, get adequate data to validate the decision support system.

    (ii). Unintended consequences [3 marks each]:

A. If the decision support system generates more decisions requiring action this could stress services.

B. If the algorithms are biased in some way they could discriminate against some group or individual.