

Module Title: Professional Issues
Exam Diet (Dec/April/Aug): April 2012
Brief notes on answers:

1. (a) I'd expect the following categories (2 marks per category):
 - Service users: concerns about comprehensibility and accessibility - consider non-internet users.
 - Service providers: concerns about integration of work, demarcation, loss of specialisms, . . .
 - Technical people in the individual service organisations: issues about the integration of systems, data incompatibility, different modes of service delivery support.
 - Civil rights organisations: issues about maintaining privacy, abuse of integrated data sets, changes in the way services are provided, . . .
 - (b) There are several potential issues - award three marks for each issue up to a max of six. Including (others could be used):
 - (i). Principle 2: on being used for specified purposes - this will need significant changes in the way each organisation registers its uses with the data protection registrar.
 - (ii). Principle 3: on being adequate and not excessive - demonstrating that the combined data set is not excessive could be difficult.
 - (iii). Principle 5: Keeping data - each organisation will have their own management processes and aligning them might extend retention times for data.
 - (c) We could consider: issues around responsibilities if the ICT teams in the individual services are required to work together; issues around work redesign and changed working practices; Allocate 2-3 marks each for two issues.
 - (d) This requires the students to use inflation adjusted pounds - in this case because the spend profile is front-loaded for scheme B the inflation adjusted amount ends up higher than the apparently more expensive scheme A. 2 Marks for observing how to adjust for inflation, 3 marks for the calculations and 1 mark for the conclusion.
2. (a) Allocate 3 marks to each of the following, up to a max of 6 marks (other licenses are possible):
 - (i). GNU GPL. I'd expect the main feature to be the "write-left" feature of the licence that means that software incorporating GNU GPL licenced software must be issued using the same licence conditions.
 - (ii). Three-clause BSD: key issue is that it can be used with other licenses and permits proprietary use of the software.
 - (b) I would expect:
 - (i). GNU GPL: This would require the use of GPL licensing on the companies products and so this could restrict sales of the product because companies may not want to use GNU GPL licenses in products incorporating this product,

- (c) BSD: it is possible to use a normal proprietary license and so protect IP using licenses and consequently product using this licence would not be restricted to using an open source licence.
 - (d) The big issues is the litigation risk of using formal mechanisms of IP protection when you are a small firm. It is probably better to use proprietary licensing if that is possible together with secrecy and obfuscation. If a large company wants to break IP protection it can do it by a variety of mechanisms, including counter claims etc. Award 3 marks for indentifying this as a major risk and up to an additonal three marks for discussion and other issues that are justified.
 - (e) The main issue is that students own their IP so that would require some way of managing this e.g. getting students to surrender their rights but this is legally dubious.
 - (f) Award 2 marks for pointing out that patents cannot be appied internationally and that only some countries allow software patents (e.g. US, Japan). Award a further 2 marks for discussion of the utility of patenting.
3. The move is from a non-safety domain to a safety domain, this maens a significant increase in the level of regulation and requirements on development process, record keeping and creating evidence of the safety of the system. There is probably also a requirement for a significant improvement in the reliability and availability of the system.
- (a) This has impact on each of the four main areas of the code of conduct:
 - Public interest: significant new impact on health and wellbeing so the company will require training in meeting this requirement.
 - Professional competence: will require training and new hires in the area of safety systems in order to discharge this obligation.
 - Relevant authority: there are new authorities with new regulations - again this will require training and hiring to meet.
 - Duty to professions: to help develop in this are the company will need to make further development opportunities available to staff.
 - (b) The main change is the liability for failure is considerably more onerous (2 marks), the company should try to mitigate this by finding ways to reduce liability and ensuring practice is at or exceeds best practice levels (up to three marks).
 - (c) The system will need to fit into different work practices, be more available, be more reliable, have more logging incorporated, . . . (1-2 marks for each up to max of 5 marks)
 - (d) The development process will need to have the capacity to ensure the new properties of the system and will need to be able to generate the requisite evidence of the properties via extensive testing or other vierification activities. The process will need to be more carefully controlled and should be aligned with best practice..