This question paper consists of 2 printed pages each of which is identified by the Code Number (COMP191101)

This is an open book examination. Any written or printed material is permitted.

School of Computing
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COMP191101
Professional Computing

Answer all 3 questions

Time allowed: 2 hours

Question 1

This question relates to Belbin's approach to team management based on team role theory, with which you should be familiar.

(a) Belbin describes 9 distinct team roles, all of which must be represented if a team is to succeed. Taking this into consideration:

(i) What does Belbin suggest as the optimal size for a team? Explain your answer.

[3 marks]

(ii) Discuss how all roles can be represented. **[5 marks]**

(b) A team of 4 is constructed to work on a software engineering project. The team consists of a Shaper, Plant, Completer and Specialist. According to Belbin the team might not work well together. By examining the various conflicts and any other problems you see, explain why this team would not work well together.

[12 marks]

[question 1 total: 20 marks]

Question 2

(a) Privacy has become a major public concern in recent times. Identify 4 applications in the computer science industry where privacy might be considered a significant concern. In each case indicate the consequences for an individual of a breach of privacy.

[8 marks]

(b) It was discussed in lectures how Sony issued an unreserved apology to Manchester cathedral for using it as a backdrop to a violent game.. Identify how Sony's actions can be assessed for ethical standards. Your answer should include legal and ethical points of view

[12 marks]

[question 2 total: 20 marks]

Question 3

(a) A software package is to be designed and built for a financial institution, to assist in software cost estimation. The software will allow users to input certain parameters and produce initial cost estimates to be used at bidding times. The financial institution has a tight schedule. It has been suggested that a software prototype would be of value in these circumstances.

Using the above scenario:

(i) Explain why using a prototype may be a preferable development option.

[10 marks]

(ii) Explain 5 potential disadvantages to using software prototyping given the development context.

[10 marks]

[question 3 total: 20 marks]

THE END