

UNIVERSITY OF PORTSMOUTH

FACULTY OF TECHNOLOGY

Department of Electronic and Computer Engineering

B302 – Management and the Technology Professional

U13505

Date: 14 July 2008

Time: 09:00 – 10:30

INSTRUCTIONS

Answer BOTH questions.

This is a closed book examination.

Provided

None.

Calculators permitted are:

Casio FX 85 Series

Casio FX 83 Series

Examiners:

Professor R. Pethig, Mr C. Nguyen

CASE STUDY QUESTION 1

During the system development (**Step 6**), there is a burglary at the office and the hardware servers containing the new system are damaged. The estimate to purchase new hardware, restore the backup data and finish the development is **an additional 3 weeks** to step 6.

What action would you take as the project manager?

[35 Marks]

Display the **network diagram** and **critical path method calculations** for this project.

[15 Marks]

SOURCE FOR CASE STUDY QUESTION 1

Below is the project plan to install a new **order management system** at a small business. **The current project plan is scheduled to complete 1 week before the end of year promotional sales period.**

Step #	Description of step	Duration (weeks)	Predecessors
1	Project feasibility and setup	2	–
2	Identify user requirements	2	1
3	Identify system requirements	1	1
4	Analysis of user and system requirements	3	2, 3
5	Design of proposed system	3	4
6	System development	2	5
7	System testing	4	5
8	Installation and user acceptance	1	6, 7
–	Maintenance	–	8

CASE STUDY QUESTION 2

As the technology project manager, **which method would you use to implement the data encryption solution for the business?**

[35 Marks]

Display the **decision tree** and **present value calculations** used to analyze this problem.

[15 Marks]

SOURCE FOR CASE STUDY QUESTION 2

You are the **technology project manager** for a small accountancy business. As a requirement for a new international customer, all **80 computers in the office** must have data encryption. The senior partner has given you **4 weeks to implement a data encryption solution**. If the project is late, the customer contract will start 6 months later with an estimated **loss of £30,000** to the business.

One alternative is a free data encryption software, **TrueCrypt**. This software must be manually installed on each computer. Personal individual training would be required for each user because the software user interface is difficult to use. This solution has a **40% probability** for completing the project successfully on schedule.

Another option is the use of a shareware package, **CryptoExpert**. This software has the advantage of being able to install once on a central server and accessible to all users on the network. However, a training workshop still needs to be developed for users. This solution has a **65% probability** for completing the project successfully on schedule. The **software does not require registration** and depends on the honesty of the business to pay the shareware license fee of **£15 per computer user**.

McAfee Anti-Theft is a commercial vendor package that costs **£30 per computer**. This software could be installed on a central server and includes an online help and training service. This solution has a **80% probability** for completing the project successfully on schedule. The **software requires registration at the time of purchase**.

The finance department has assigned the **discount rate (k value)** of **6%** to this project. The duration for analysis is **1 month**.