***INFORMATION TECHNOLOGY***

***VCE Unit 4 Outcome 2***.

**Outcome 2:** Evaluate the effectiveness of strategies used by organisations to manage the storage, communication and disposal of data and information, and recommend improvements to the current practices.

**Task:**

* Test over 3 periods
* Total of 40 marks available
* It will contribute to 100% of the marks allocated for this outcome.
* No access to texts, notes, cheat sheets, dictionaries or translators.

Read the following case study’s and respond to the questions that follow.

**Marla’s Mansions**

Marla Jarkova has an interesting job; she finds, buys and sells mansions for the rich and famous people of Melbourne. She has a reputation for being able to find the perfect million-dollar property for even the most fussy of clients. She turns over an average of $29 million a year buying and selling properties for her clients, though her personal profit is a relatively modest $200,000 from commissions.

Naturally, dealing with vulnerable celebrities and such huge sums of money, Marla’s reputation for honesty and reliability is vital to her.

She has no office; she works from home which she shares with her 19 year old son Brad who seems overly interested in his mother’s famous young female clients, especially the movie starlets and singers.

Marla is never seen without her notebook computer, a modest Lenovo, which she uses a lot but with very little skill. She has not installed any new software on the 2 year old notebook since she bought it, nor has she worked out how to use features like Windows Update (which confused her, so she turned it off). The trial antivirus software that came with the Lenovo expired 18 months ago. She also turned off the User Access Control because it kept annoying her by asking for her permission to make changes to her computer.

She does have a copy of Microsoft Office on her computer, which Brad copied from a friend, but Marla prefers to use internet based Google Docs because its word processing and spreadsheet tools are simpler than Microsoft Word and Excel. All of her documents are stored ‘in the cloud’ at Google. She does not keep copies of these files on her notebook because she finds it hard to find them later.

Her data includes: her clients’ contact information: their property wish lists (eg favoured suburbs and what features they want in a house); lists of properties she knows are on sale, including their alarm codes so she can take clients to inspect the houses at any time. Some clients have even given her their bank account information so she can snap up a sale on their behalf as soon as their dream property comes on the market.

At home, Brad uses his mother’s notebook to check his Facebook page, chat with friends and play games. Unfortunately, Brad has also been using his mother’s data to get stars’ phone numbers and addresses so he can make anonymous phone calls or sneak into their properties. He has had no trouble finding his mother’s password so he can log into her Google account because it has always just been ‘marla’.

Yesterday, while cleaning Brad’s room, Marla found disturbing photographs of some of her female clients. The photographs seem to have been taken through their bathroom windows. Marla is very worried. She does not want to see him prosecuted, but does not know what to do.

1. How would it affect Marla if the data and information she stored were lost or stolen? (2)
2. Name 2 laws that Marla and Brad might be breaching. For each law, explain how it may have been breached. (2)
3. Identify 1 ethical problem in the case study, and explain how it might be overcome. (2)
4. Identify 2 threats that Marla’s data and information face from her current data management practices and explain why each is a threat. For each threat, suggest a strategy to prevent or minimize data loss. (1+2, 1+2)
5. Explain how cloud computing might be good for Marla. (2)
6. Explain 2 disadvantages that may be associated with Marla’s use of cloud computing. (2)
7. Explain how Marla could simply and effectively improve the security of her current information system. (2)
8. Recommend a data disaster recovery plan that would help Marla recover from catastrophic data loss. (4)
9. How could Marla test her recovery plan? (2)

**Rype Computer Security**

Peter and Hannah Davis established Rype Computer Security (RCS) three years ago in response to a need they felt existed in the marketplace for an organization to provide internet and data security services to small businesses. Since then they have expanded their business and now serve many small organisations within the Melbourne metropolitan area, providing advice on how these small organisations can best store their data, and the equipment that can be used to minimize data loss and theft.

Peter and Hannah store their client data on a computer located within an office located at Chisholm Springs. The data contains details of clients, the security procedures and equipment they all currently have in place within their businesses, and an analysis of the possible threats to the business and recommendations for the business.

The office has a reception area from which clients and visitors cannot access the main office area. Peter or Hannah may activate the door latch after the visitors have buzzed the bell at the reception desk. The main office area is one large room where all of the client files, computers and other peripherals and office furniture are located.

Peter and Hannah are concerned about the security of the data on their information system and have implemented a number of measures to ensure that their own data is secure. They store their client data on the hard drive on their computer system. Once a week one of them completes a backup of any files created or updated during the week onto a DVD. This is then stored in a lockable fireproof cupboard in the office. Each DVD is labeled with the data on which it was created. A new folder is set up on the hard drive when a new client is taken on and all files relating to that client are stored within the folder. Each filename consists of the first three letters of the client name, the type of file, the date the file is created and the version number of the file.

After an initial interview with a client, which usually take place at the client’s place of work, Peter or Hannah often contact the business via email to ask additional questions about their procedures and equipment to ensure the overall assessment is complete and accurate. Once the report on the business is completed and recommendations are made, a copy of the report is forwarded to the business manager via email and a copy is also sent by courier to ensure that the business manager receives the report.

Every twelve months, Peter or Hannah archive the client files in order to make room for new client files. The archive is stored in a lockable filing cabinet in the office. If the client does not make contact within the following twelve months, the archive and any associated hardcopies are destroyed.

Being in the IT business, Peter and Hannah want to use the latest ICT techniques, equipment and procedures to satisfy the needs of their clients. They have always been proud of offering their clients the latest ICT solutions and they are willing to explore any of the latest developments.

It has been suggested that they explore an internet based solution where their client data would be stored by a large specialized data centre that offers on demand and shared services to offsite storage, processing and computer recourses. However, they are also obviously concerned about how such a company also stores, communicates and disposes of the data and information.

Peter and Hannah want the most secure, efficient and effective information management strategy possible. They are happy to accept recommendations on how to safely store, communicate and dispose of their data and information using the latest ICT equipment, techniques and procedures.

1. What could happen to Ripe Computer Security if their client data was lost or stolen? (1)
2. Identify a threat that RCS’s data and information face from their current data management suggest a strategy to prevent or minimize data loss. ( 1+2)
3. Identify 2 threats that RCS’s data and information face from their future data management plan and explain why each is a threat. For each threat, suggest a strategy to prevent or minimize data loss. (1+2, 1+2)
4. Identify one ethical problem in this case study. How this problem might be overcome. (2)
5. Identify how RCS currently disposes of their data and discuss any threats to the current practice and give a suggestion for future practice. (2)
6. When RCS change their information management strategies, what evaluation criteria should they use to evaluate the success of those changes. 1 mark for listing the tools that they could use. 1 mark for giving examples of what would be included in these tools.(2)

|  |  |
| --- | --- |
| Question | Marks |
| How would it affect Marla if the data and information she stored were lost or stolen? | 2 |
| Name 2 laws that Marla and Brad might be breaching. For each law, explain how it may have been breached. | 2 |
| Identify 1 ethical problem, explain how it might be overcome. | 2 |
| Identify 2 threats that Marla has currently, explain why. suggest a strategy | 1+2  1+2 |
| Explain how cloud computing might be good for Marla. | 2 |
| Explain 2 disadvantages of cloud computing. | 2 |
| Explain how simply and effectively improve the security | 2 |
| Data disaster recovery plan | 4 |
| How could Marla test her recovery plan? | 2 |
| Ripe Computer Security if their client data was lost or stolen | 1 |
| threat that RCS’s data and information face from their current data management | 1+2 |
| 2 threats future data management | 1+2  1+2 |
| one ethical problem, overcome | 2 |
| how RCS currently disposes, give a suggestion | 2 |
| what evaluation criteria should they use to evaluate the success of those changes | 2 |
| Total | **40** |