

CHAPTER TEST ANSWERS**Chapter 1 Data analysis****Section A****Multiple-choice questions**

- 1 Clarence is researching the behaviour of primary students in Victorian schools. During his research, he finds data from a similar study conducted in England.
A He should use the data, but with care because it might be irrelevant.
- 2 Quantitative data is:
C based on facts and measurement.
- 3 Qualitative data can be gathered from:
B observation.
- 4 Primary data:
D is gathered personally, or first interpreted, by the researcher.
- 5 An advantage of questionnaires, compared with interviews, is that they:
C are easy to treat statistically.
- 6 An open question:
B does not restrict the type of answer given.
- 7 Bias can enter research data if:
A anyone has a vested interest in the issue.
- 8 Data is more likely to be reliable if it comes from a:
C .edu domain.
- 9 Footnotes appear:
D at the bottom of a page.
- 10 One way to protect the privacy of people who provide data to a researcher is to:
A de-identify the data.
- 11 You can protect data you are using from being read by unauthorised people by:
B encrypting it.
- 12 An incremental backup:
B is quicker than a full backup.

13 A strong password:

- D should not be easy to guess.

14 A computer firewall:

- C helps to stop hackers entering a network.

15 *The Privacy Act 1988* applies to:

- A companies with an annual turnover of more than \$3 million.

Section B

Short answer questions

1 List five examples of actions that are prohibited by the *Privacy Act 1988*.

Answer: Refer to the Australian Privacy Principles (Table 1.3, page 23 of the student book). Any action that violates one of the APPs earns 1 mark.

2 a Define 'ethical dilemma'.

Answer: An ethical dilemma is a difficult situation that involves a moral conflict for a person. If you obey one moral path, you end up transgressing the other. In this situation, both paths are of equal desirability and the decision you make will always have potential negative consequences for one party.

b List one example of an ethical dilemma related to the use of information systems.

Answer: There are many potential examples. Do not accept rule-based or law-based infringements, such as stealing data or copyright infringement. Kelly finds that her friend, a co-worker, has been misusing a corporate database for personal benefit. If Kelly reports this to her boss, her friend will get into trouble and likely lose his job, which Kelly finds difficult to take because she knows her friend is suffering financially at the moment. However, if she does not tell, the people whose personal information is kept in the database may have their privacy violated.

3 A young lawyer is setting up her first office. She has hired an assistant and a secretary who will both be using the computers at the office. She is concerned that her client data should be well protected against damage, loss and unauthorised use. She needs to train her employees about threats to data, and safe data-handling practices. Write an outline of the points she should cover in her training, including the choice of passwords, data backups and using email safely.

Answer: Responses will vary. However, you would expect to see discussion of:

- strong passwords ≥ 8 characters, including digits and/or punctuation (1 mark)
- keeping passwords secret (1 mark)
- full weekly backups, incremental daily backups, backup media stored offsite and testing restoration media (2 marks)
- ignoring phishing emails (1 mark) and not clicking on links or attachments in unexpected emails (1 mark)

- 4 In the spaces below, list a total of five advantages or disadvantages of using cloud storage. You must list at least one advantage and one disadvantage.

Answer: 1 mark for each advantage and disadvantage

Advantages of cloud storage	Disadvantages of cloud storage
Stored offsite	No direct control over who has access to data, or how it is protected
Large (unlimited?) storage space	Slow to upload data using ADSL
No need for expensive local backup hardware, software	Could be expensive
Can be automated	Supplier could collapse or cancel your account without warning
Can occur in real time as data is changed/created	

- 5 A researcher is investigating the question of whether playing violent computer games causes teenagers to act more violently. The researcher collects five types of data. Using the table below, list an example of each type of data that would be relevant to the research.

Answer: Responses will vary; examples are shown in the table.

Data type	Example
Primary	Interview game players (1 mark)
Secondary	Find research undertaken by others (1 mark)
Qualitative	Ask players how they feel when playing violent games (1 mark)
Quantitative	Compare violent crime figures for game players versus non-gamers (1 mark)
From a closed question	'Do you play violent games – never, sometimes or frequently?' (1 mark)