



OFFICE OF TASMANIAN
ASSESSMENT, STANDARDS
& CERTIFICATION

Tasmanian Certificate of Education
External Assessment 2017

PLACE YOUR CANDIDATE
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INFORMATION SYSTEMS and DIGITAL TECHNOLOGIES

(ITS315113)

Time allowed for this paper

- Working time: 3 hours
- Plus 15 minutes recommended reading time

Pages:	8
Questions:	8

Candidate Instructions

1. You **MUST** make sure that your responses to the questions in this examination paper will show your achievement in the criteria being assessed.
2. There are **TWO** sections to this paper. Each section contains **ONE** case study.
3. You must answer **EIGHT** questions in total.
 - **ALL** questions from **Section A**.
 - **ALL** questions from **Section B**.
4. The recommended time to be spent on a section is given in the instructions in that section.
5. All written responses must be in English.

On the basis of your performance in this examination, the examiners will provide results on each of the following criteria taken from the course statement:

- Criterion 1** Demonstrate knowledge and understanding of how real world information problems are analysed and solved.
- Criterion 2** Demonstrate knowledge and understanding of the components of an information system, and their inter-relationships.
- Criterion 3** Demonstrate knowledge and understanding of social issues associated with information systems.
- Criterion 5** Use and evaluate an information system.
- Criterion 8** Communicate ideas and information in a variety of forms.

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CANDIDATE INSTRUCTIONS

You must complete all your answers using an appropriate software program.

You are required to save your response to both sections in **one** file on the USB memory stick provided to you.

The file title **MUST** be your TASC ID Number, eg, 12W12572. This ID number must also be shown in the footer of your document.

You should save your file regularly whilst working. (Check the date and time stamp of your saved file prior to completion).

If the file is not saved correctly, and **cannot** be accessed on the USB drive, it **cannot** be assessed and TASC takes **NO** responsibility for the inability to assess your work.

When you have completed the exam you **MUST also save the final version of your file in pdf format** on the provided USB memory stick.

In this examination you may use the internet to assist in answering Section A and are expected to use the internet when researching your answers for Section B.

Any source of information **MUST** be referenced **after your answer to that question** by supplying URL(s) of the source(s), and by identifying any other communications made, such as email or instant messaging. If you have communicated with anybody via email you **MUST** also include a pdf copy of all emails and their contents as part of the files saved on the USB memory stick.

You **MUST NOT** collaborate with any other candidate undertaking this examination or teacher of this subject, either verbally or electronically. To do so will mean that you are considered to be in breach of the TASC External Assessment Rule. Penalties will apply.

SECTION A

Answer **ALL** questions in this section.

It is recommended that you spend 70 minutes answering the questions.

This section assesses **Criteria 1, 3, 5 and 8**.

Case Study:

After years of ferrying mainland relatives and friends around the state, showing them what Tasmania has to offer, Mr and Mrs Jones decided to use their experience and knowledge to set up a company called *TassieDayTours*. This business caters for small groups of tourists (generally no more than four) and offers a wide variety of locations/experiences. They have been running this business for about five years.

Currently, *TassieDayTours* operate a simple non-interactive website and potential customers either email or phone them to make bookings. They use their laptop to generate invoices using a word processor and they keep track of all transactions on a spreadsheet. They currently backup to their Google drive account. They have recently started to use Facebook and Instagram as a means of promoting their business.

The owners believe they need to upgrade their systems in order to cope with the recent increases in bookings and transactions.

Answer the following with reference to the case study.

Question 1 (20 minutes)

This question assesses Criteria 5 and 8.

The owners recognise that while their business has made use of technology, it is not running as efficiently as it possibly could.

With reference to the current system for booking and managing transactions:

- (a) Evaluate the current information system (data, equipment, people and procedures) by listing the positives and negatives in a table.
- (b) Identify and detail possible improvements or changes that could be made to the information system, as described in the case study above, to improve its efficiency.

Section A continues.

Section A (continued)

Question 2 (30 minutes)

This question assesses Criteria 1 and 8.

The owners of *TassieDayTours* have approached you and your team of fellow IT students to help them by taking on a project to improve the way in which the company's transactions occur.

- (a) Describe in detail what you and your team would do during the Planning phase of the Project Lifecycle (PLC).
- (b) Describe in detail how you and your team would work with *TassieDayTours* on the Design Stage of the Systems Development Life Cycle (SDLC).
- (c) What are the PLC activities you and your team would do with *TassieDayTours* when it came to working on the Closure part of the project?

Question 3 (20 minutes)

This question assesses Criteria 3 and 8.

- (a) What are some of the potential legal implications for *TassieDayTours*, and their customers, in storing their backed up data on a cloud-based service like Google drive?
- (b) *TassieDayTours* have recently started to take photos of their tours and they post messages and images onto Facebook and Instagram. Discuss some of the social and ethical implications of doing this. What advice would you give them regarding this type of activity?
- (c) The owners have recently received some negative posts on their social media sites. What advice would you give them about the ethics of wanting to remove these negative posts?

SECTION B

Answer **ALL** questions in this section.

You may need to refer to the **Section A Case Study** when answering the questions in this section.

It is recommended that you spend **20 minutes** researching and then a further **90 minutes** answering the questions.

This section assesses **Criteria 1, 2, 3, 5 and 8**.

Case Study:

The recent increase in the number of tourist visitors to the state (1.2 million visitors last year, including 96 cruise ships) has prompted Mr and Mrs Jones to expand their business. They wish to capitalise on the current tourism boom because they believe that there are plenty of other Tasmanians who could provide similar services to *TassieDayTours*.

They have seen how other types of **on-demand** online services have utilised 'ordinary' people (non-commercial vendors) to provide services and they think that they can do something similar with their business.

Their concept is that individuals interested in providing additional services will register with *TassieDayTours*. These people will be required to provide details including their location, the type of trips they are able to cater for, how many tourists they can accommodate per trip, dates when they are available and languages spoken (if applicable).

TassieDayTours system will then automatically match up interested tourist groups with the appropriate providers.

Briefly research examples of **on-demand** online services that provide individuals an opportunity to benefit from the sharing economy as referred to in the case study. These examples do not need to be tourism related. Airbnb and Epic Delivery Perth (WA) are two examples.

Question 4 (20 minutes)

This question assesses Criteria 2 and 8.

- List two URLs of businesses or organisations that link customers with service providers in the way that *TassieDayTours* is intending. You may choose to use one of the two examples provided.
- By discussing the various parts of an Information System (equipment, people, data and procedures) found in **EACH** of the two sites you have researched, make a comparison/analysis of the suitability of each to meet the needs of *TassieDayTours*.

Section B continues.

Section B (continued)

Question 5 (10 minutes)

This question assesses Criteria 5 and 8.

Considering your two researched systems and the needs of *TassieDayTours*:

- (a) List **two** benefits of each system.
- (b) List **two** disadvantages of each system.
- (c) Make a judgement as to which of the researched systems you believe would be most suitable for *TassieDayTours*.

Question 6 (20 minutes)

This question assesses Criteria 2 and 8.

Based on the information you have researched in Question 4, as well as any other suggestions you may have, describe a **unique and feasible** Information System which could be implemented to achieve *TassieDayTour's* goal.

- Address all parts of an information system (data, equipment, people and procedures).
- Use a variety of ways to describe how the new system would both look and function.
- Use graphics and/or diagrams to help your explanation.

Question 7 (20 minutes)

This question assesses Criteria 1, 5 and 8.

- (a) Describe in detail the SDLC processes and methods you would plan to use in the Development Stage for the new system.
- (b) List and describe the test criteria you would use to check that the new system you proposed is working correctly.

Question 8 (20 minutes)

This question assesses Criteria 3 and 8.

Consider the various stakeholders of the new system.

- (a) The owners want the capacity to override the providers that are chosen for each client by the system. They would like to manually select a provider, even though they might not be the best match. Discuss the ethical implications of this request.
- (b) The owners have some concerns about the security of the proposed new system. Briefly outline their legal responsibilities they have with regard to protecting the personal and confidential data stored within this new system.
- (c) A provider is considering contacting a client and requests the client contact details from *TassieDayTours*. Discuss the legal issues around *TassieDayTours* providing such contact details to the provider.



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