



OFFICE OF TASMANIAN
ASSESSMENT, STANDARDS
& CERTIFICATION

Tasmanian Certificate of Education
External Assessment 2018

PLACE YOUR CANDIDATE
LABEL HERE

INFORMATION SYSTEMS and DIGITAL TECHNOLOGIES

(ITS315118)

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 each 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** Identify, analyse and solve real-world information problems.
- Criterion 2** Describe, explain and analyse the components of an information system, and the inter-relationships between these components.
- Criterion 3** Describe, explain and analyse social, legal and ethical 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, e.g. 12W12572. Your TASC ID 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 **10 minutes** reading the information contained in this section and a further **80 minutes** answering the questions. NOTE: Each question has a recommended time to spend answering the question.

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

Case Study:

Jim and Marge Smith have always been car enthusiasts. Thirty years ago they bought a used Rolls Royce at a car auction. Not long after this purchase, a close friend asked if he could use the “Rolls” for his upcoming wedding. This experience led Jim and Marge to starting a wedding Chauffeuring service called Tas Exclusive Cars shortly thereafter. They expanded their fleet about twenty years ago to include a Jaguar and a Stretched Limousine. Business has been good and Tas Exclusive Cars now caters for a range of activities in addition to weddings, such as school leavers’ dinners, school formals etc.

Tas Exclusive Cars is listed in the phonebook and they place ads in the local newspaper to attract business. They also distribute business cards to customers to expand their “word of mouth” customer base. Tas Exclusive Cars currently take bookings over the phone or by email. They use an exercise book, which has a calendar week on each page, to record their bookings. Bookings are entered with a pencil so that they can be easily erased or modified. Invoices and receipts are issued using pre-printed invoice and cash receipt books.

Jim and Marge spend many hours each month manually managing their finances (book-keeping) which is also paper-based. They would love to simplify this process and are keen to better visualise and understand how their business is running.

Answer the following with reference to the Case Study.

Question 1 (20 minutes)

This question assesses Criteria 5 and 8.

Jim and Marge recognise that their business has not made good use of available technology. They have approached you and your team of fellow IT students to help them by taking on a project to improve the way in which transactions occur.

With reference to the current system for booking and managing transactions in the Case Study above:

- Evaluate the current information system (data, equipment, people and procedures).
- List the positives and negatives in a table.
- Identify and detail possible improvements that could be made to the current information system.

Section A continues.

Section A (continued)

Question 2 (40 minutes)

This question assesses Criteria 1 and 8.

- (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 would work with Tas Exclusive Cars on the Design Stage of the Systems Development Life Cycle (SDLC).
- (c) Describe in detail the SDLC processes and methods you would plan to use in the Development Stage for the new system.
- (d) What are the PLC activities you would do with Tas Exclusive Cars when working on the Closure part of the project?

Question 3 (20 minutes)

This question assesses Criteria 3 and 8.

- (a) Marge is a good friend of Peter Rose, the owner of the local Florist shop. During a morning tea chat, Marge was asked by Peter if she could provide the contact details of her customers to him so that he could send them promotional advertising materials, such as sample bouquets, floral arrangements and the like for upcoming weddings booked by Tas Exclusive Cars.

Discuss the ethical concerns that Jim and Marge would need to consider and any legal implications of supplying this data to Peter.

- (b) Tas Exclusive Cars would like to take photos of their clients and post messages and images on Facebook and Instagram to expand the profile of their business.

Discuss some of the social and ethical implications of doing this.

What advice would you give them regarding this type of activity?

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 **70 minutes** answering the questions. NOTE: Each question has a recommended time to spend answering the question.

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

Case Study:

In recent years, Jim and Marge have had many requests from potential clients for classic V8 high-performance cars such as Toranas, Monaros, GT Falcons, Mustangs and the like, to be used for weddings and school leavers' dinners. Whilst they are keen to expand their fleet, they are concerned that having a large number of vehicles sitting around idle would be a bad business decision.

Whilst the chauffeur service would take priority, they have considered the option of renting their unallocated cars out to locals and tourists. They are aware that the number of tourists visiting Tasmania has boomed recently, and there is likely to be a niche market for unique and prestigious rental cars.

Briefly research examples of businesses or organisations that allow clients to see the availability of their resources (e.g. cars, motel rooms, plant equipment) on given dates and then allows those clients to make bookings. Your two examples must be significantly different to allow comparison in your answer to question 4(b).

Question 4 (15 minutes)

This question assesses Criteria 5 and 8.

- (a) List two URLs of businesses or organisations that allow customers to browse availability and then to make bookings in different ways.
- (b) 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 Tas Exclusive Cars.

Section B continues.

Section B (continued)

Question 5 (10 minutes)

This question assesses Criteria 5 and 8.

Considering your two researched systems from Question 4, and the needs of Tas Exclusive Cars:

- (a) List two benefits of each system to Tas Exclusive Cars.
- (b) List two disadvantages of each system to Tas Exclusive Cars.
- (c) Which of the researched systems do you believe would be most suitable for Tas Exclusive Cars?

Question 6 (15 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 Tas Exclusive Cars' goal.

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

Question 7 (10 minutes)

This question assesses Criteria 1, 5 and 8.

- (a) Describe in detail SDLC processes and methods you would 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.

- (a) Jim and Marge are aware that technology is available to track vehicles in real time. They are keen to install this technology in their vehicles to make sure that clients who rent their cars do not abuse them by taking them "off road" or speeding.

List and discuss one **legal** and one **ethical** consideration associated with this proposal.

- (b) With any new system that is implemented, it is possible that some customer data will be stored by a third party (e.g. a cloud-hosting service or an external private company). This may include name and address data as well as credit card and/or payment details.

Identify and explain some of the social, legal and ethical issues that you believe need to be considered when implementing the new system.



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