



INFORMATION TECHNOLOGY and SYSTEMS

Senior Secondary

Subject Code: ITS315108

FINAL SAMPLE External Assessment

2008

Time: Two Hours

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

Pages: 12
Questions: 4

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CANDIDATE INSTRUCTIONS

Candidates **MUST** ensure that they have addressed **ALL** of the externally assessed criteria on this examination paper.

The paper is divided into **FOUR** sections.

Each section contains **ONE** Case Study.

Candidates must attempt **TWO** sections (ie **TWO** Case Studies).

Candidates must answer **ALL** questions in their chosen sections.

ALL questions in each section are of equal value.

Answer each section in a separate answer booklet.

It is recommended that you spend approximately 60 minutes on each section.

Candidates should take care with the presentation of their answers, which should be comprehensive and to the point. Except where advised otherwise, answers should be composed of complete sentences. Diagrams should be used where appropriate but not to the exclusion of all text. Answers should, in general, be structured in the same order as issues are raised in each question.

All written responses must be in English.

SECTION A

Answer **ALL** questions in this section.

You should spend approximately **60 minutes** on this section.

Use a separate answer booklet for this section.

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

Case Study:

UCanCNow is a local video hire company, which has been renting videos to customers who enter their stores. They have been losing customers, and have identified the need to expand their operation.

Question 1

You have been employed as a consultant to work with *UCanCNow*.

- (a) Identify some reasons why *UCanCNow* might be struggling to survive.
- (b) Discuss ways in which you might obtain information to guide you in your recommendations to *UCanCNow*.

Question 2

You propose to *UCanCNow* that one possible solution is to base their distribution of video material on web-based technologies.

- (a) Identify an alternative solution for the company to increase their number of customers.
- (b) Discuss the advantages and disadvantages of your alternative solution, when compared with the web-based distribution of materials. Recommend the approach they should take with regard to increased customer usage.

Section A continues opposite.

Section A (continued)

Question 3

The *UCanCNow* directors decide that they will develop a web-based video distribution system.

- (a) What technology (hardware, software and communications) would subscribers need to download and play these videos?
- (b) What techniques could be employed by *UCanCNow* to limit the time period that videos could be viewed?

Question 4

What are the implications if the directors make the discovery that R-rated movies have been downloaded by minors?

SECTION B

Answer **ALL** questions in this section.

You should spend approximately **60 minutes** on this section.

Use a separate answer booklet for this section.

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

Case Study:

Recogneyes is an Australian company with about 60 employees that specialises in assisting organisations monitor the location of people in places such as offices, schools, cultural and sporting events, bus and railway stations, and airports.

One of their current projects involves developing a system named *OnSight* to allow organisers of events such as a music festival or a football game to keep a real time record of which ticket holders are currently inside a venue.

Question 5

The management of *Recogneyes* fear that the team they have put together to work on the development of *OnSight* is not working well and that this may lead to the development being unsuccessful.

- (a) Identify other factors that may cause the development of the system to be unsuccessful.
- (b) Discuss how you could gather information on the functioning of the team to make recommendations to the managers.

Question 6

For the *OnSight* system to work correctly the organisers of an event (such as a music festival or football game) need to have recorded information about ticket holders prior to the event and be able to collect information about each ticket holder's location during the event.

- (a) Identify the data that needs to be collected about ticket holders before the event and their location during the event.
- (b) Discuss two ways to ensure that the information collected prior to the event is accurate, and that information produced about the location of ticket holders is up-to-date.

Section B continues opposite.

Section B (continued)

Question 7

- (a) What technology (hardware, software and communications) would event organisers need to collect information about ticket holders prior to the event?
- (b) What technology (hardware, software and communications) could ticket holders need to interact with to enable the event organisers to have a real time record of who is inside a venue?

Question 8

The management of *Recogneyes* are concerned that the real-time tracking of which ticket holders are inside a venue may lead to a negative reaction, and a fear by organisers of the potential for reduced ticket sales. Considering all stakeholders, what are the implications of the *OnSight* system that the management would need to consider?

SECTION C

Answer **ALL** questions in this section.

You should spend approximately **60 minutes** on this section.

Use a separate answer booklet for this section.

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

Case Study:

Digital Technic College is a senior secondary college for around 900 Year 11 and 12 students.

The Principal wishes to provide students with a wide selection of subjects. She intends to supplement classroom teaching with a virtual school, where students can visit, choose, enrol and participate in a range of classes electronically.

Question 9

The college has been asked if they provide subjects via distance learning. You have been asked to offer opinions about the college's subject choices.

- (a) Identify reasons why some subjects would be difficult to deliver via a virtual school.
- (b) Discuss how you would involve stakeholders in deciding which subjects are suitable to be supplemented by the virtual school.

Question 10

Digital Technic College needs to assess and record students' progress in their virtual school. Students will need to be informed of their marks and course requirements based on classroom and virtual work.

- (a) Identify two ways that the college could use to inform students of their marks and course requirements.
- (b) Discuss the advantages and disadvantages of your solutions. Recommend the approach they should take to inform students of their marks and course requirements based on classroom and virtual work.

Section C continues opposite.

Section C (continued)

Question 11

- (a) What technology (hardware, software and communications) would *Digital Technic College* require to set up and maintain a virtual school?
- (b) What technology (hardware, software and communications) would students need to access a virtual school, from home?

Question 12

People in the community have read the proposal of the *Digital Technic College* to run face to face teaching, virtual schooling, and a combination of both. Concerns have been raised of the appropriateness of these delivery methods for all potential students. Considering the stakeholders, what are the implications of such an implementation?

SECTION D

Answer **ALL** questions in this section.

You should spend approximately **60 minutes** on this section.

Use a separate answer booklet for this section.

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

Case Study:

Lei has decided that working for an employer is not what she wants. Globalisation of the IT industry allows people to be self-employed. Lei specialises in economic feasibility modelling for small to medium size businesses.

Lei intends to tender for contracts offered nationally and internationally. However, she also would like to rely on contract offers by 'word of mouth', and by advertising herself and her professional skills. There would be many avenues open to Lei to present herself to the world as an economic consultant.

Lei made this decision as she is aware of many IT professionals who have successfully created an international career as independent consultants.

Question 13

Lei decides to initially concentrate on making herself known as a professional to potential national and international clients:

- (a) Identify some of the problems that she might encounter in a world with literally millions of competitors and millions of potential clients.
- (b) Discuss ways Lei could obtain information on possible courses of action she could undertake to advertise herself.

Question 14

One possible solution Lei could try to make herself known to potential national and international clients would be with the use of the WWW.

- (a) Identify at least one alternative solution for Lei to increase her chances of obtaining work contracts from national and international businesses.

Section D continues opposite.

Section D (continued)

Question 14 (continued)

- (b) Discuss the advantages and disadvantages of your alternative solutions with the use of the WWW. What approach might be the best for Lei with regard to increasing her chances of obtaining a contract from a potential client for a consulting project?

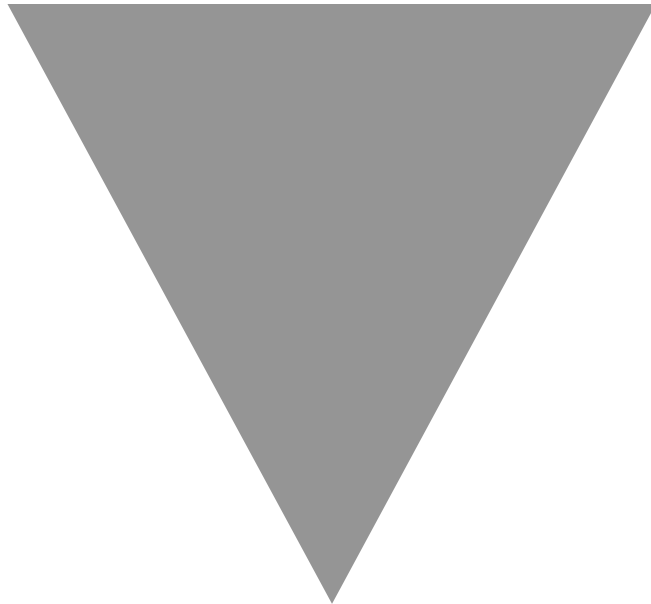
Question 15

Lei decided to try a web-based approach to try to attract possible business clients for whom she could act as an economic consultant.

- (a) What technologies (hardware, software and communications) could she use to create an interactive website so potential clients can see her skills, and choose to contact her?
- (b) What techniques could Leigh employ to limit the amount of 'bogus' and nuisance-based enquiries?

Question 16

What are the issues that Leigh has to consider before she accepts a contract from a business based in a foreign country?



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