



Western Australian Certificate of Education ATAR course examination, 2016

Question/Answer booklet

APPLIED INFORMATION TECHNOLOGY

Please place your student identification label in this box

Student number: In figures

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In words

Time allowed for this paper

Reading time before commencing work: ten minutes

Working time: three hours

Materials required/recommended for this paper

To be provided by the supervisor

This Question/Answer booklet

Multiple-choice answer sheet

Number of additional
answer booklets used
(if applicable):

To be provided by the candidate

Standard items: pens (blue/black preferred), pencils (including coloured), sharpener,
correction fluid/tape, eraser, ruler, highlighters

Special items: nil

Important note to candidates

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised material. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further.

Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of examination
Section One Multiple-choice	15	15	20	15	15
Section Two Short answer	8	8	40	44	25
Section Three Extended answer	1	1	50	39	20
Section Four Scenario	1	1	70	61	40
				Total	100

Instructions to candidates

1. The rules for the conduct of the Western Australian Certificate of Education ATAR course examinations are detailed in the *Year 12 Information Handbook 2016*. Sitting this examination implies that you agree to abide by these rules.
2. Section One: Answer all questions on the separate Multiple-choice answer sheet provided. For each question, shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, then shade your new answer. Do not erase or use correction fluid/tape. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.
3. You must be careful to confine your answers to the specific questions asked and to follow any instructions that are specific to a particular question. Write your answers to the questions in Sections Two, Three and Four in this Question/Answer booklet.
4. Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Section One: Multiple-choice**15% (15 Marks)**

This section has **15** questions. Answer **all** questions on the separate Multiple-choice answer sheet provided. For each question, shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, then shade your new answer. Do not erase or use correction fluid/tape. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

Suggested working time: 20 minutes.

1. The backing up of data that has only changed since the last backup is called
 - (a) an end of day backup.
 - (b) a complete backup.
 - (c) an incremental backup.
 - (d) a differential backup.

2. In a video editing application, a transition is
 - (a) an effect added between two frames in the timeline.
 - (b) an effect added to an individual frame in the timeline.
 - (c) the title of the sound layer in the application.
 - (d) the inserting of a video layer in the application.

3. When evaluating the information on a website, the user needs to check for currency, accuracy and
 - (a) checkability.
 - (b) accessibility.
 - (c) verifiability.
 - (d) usability.

4. In the following graphic, which publishing feature is demonstrated?

Applied Information TechnologyScarborough Kings Park *Western Australia*

- (a) frames
- (b) print/display
- (c) layers
- (d) typography

See next page

5. The protection of a school network from unauthorised external access can be achieved by using
 - (a) a firewall application.
 - (b) a malware application.
 - (c) an anti-virus application.
 - (d) a content management system.

6. In a shared wireless network, as more users transfer data through the same wireless access point, the transfer speed
 - (a) increases.
 - (b) decreases.
 - (c) stays the same.
 - (d) fails.

7. Which of the following is a record of who has accessed a computer system and what operations that person has performed over time?
 - (a) audit trail
 - (b) key logging
 - (c) password logging
 - (d) encryption

8. A model that is constructed to test a product or process is called a
 - (a) site map.
 - (b) prototype.
 - (c) flow chart.
 - (d) user experience.

9. The contract that formally defines the services a service provider makes available to its customers is called a
 - (a) service provision agreement.
 - (b) customer and service provider agreement.
 - (c) customer service agreement.
 - (d) service level agreement.

10. An international community that specifically works to develop web standards is called the
 - (a) world wide web consortium.
 - (b) world internet company.
 - (c) web standards community.
 - (d) web and internet community.

11. The process of identifying anomalies, patterns and correlations within large data sets to predict outcomes is referred to as data
- (a) correlation.
 - (b) mining.
 - (c) analysis.
 - (d) management.
12. The process that protects the creation of something new or original, such as an idea, invention, brand or design, is referred to as
- (a) ownership registration.
 - (b) design registration.
 - (c) intellectual property registration.
 - (d) ideas registration.
13. The concept of Freedom of Information (FOI) in Australia provides a person with the right to request access to
- (a) most documents held by Australian government ministers and most agencies.
 - (b) all documents held by Australian government ministers and all agencies.
 - (c) most documents held by private agencies.
 - (d) all documents held by private agencies.
14. The Uniform Resource Locator (URL) that starts with https:// uses a protocol to encrypt communications that is called a
- (a) secondary sockets layer.
 - (b) secure submission layer.
 - (c) secondary submission layer.
 - (d) secure sockets layer.
15. Which of the following software applications use a multi-layer track to create a digital product?
- (a) word processor
 - (b) web page editor
 - (c) video editor
 - (d) database

End of Section One

See next page

Section Two: Short answer

25% (44 Marks)

This section has **eight (8)** questions. Answer **all** questions. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 40 minutes.

Question 16

(5 marks)

- (a) State **two** reasons why it is important for a business to create a code of conduct for its employees. (2 marks)

One: _____

Two: _____

- (b) List **three** elements that are typically included in a code of conduct. (3 marks)

One: _____

Two: _____

Three: _____

Question 17**(4 marks)**

Outline **two** benefits to a business of using a template in a particular application software.

One: _____

Two: _____

Question 18**(4 marks)**

A business wants to convert its printed documentation to digital publications. Describe **one** advantage and **one** disadvantage to the business of implementing this conversion.

Advantage: _____

Disadvantage: _____

Question 19

(5 marks)

(a) Explain the concept of 'online defamation' in Australia.

(3 marks)

(b) Outline **one** appropriate action a person in Australia can take if they believe they have been the victim of online defamation.

(2 marks)

Question 20

(9 marks)

Explain how using each of the following will ensure security when processing data.

Digital signatures: _____

Digital certificates: _____

Encryption: _____

Question 21

(4 marks)

- (a) Outline why it is important to evaluate the specifications of a computer system for usability. (2 marks)

- (b) A software application suggests at least 1GB of RAM but recommends 3GB of RAM. State **two** problems that could arise if the software was installed on a computer system with 1GB of RAM. (2 marks)

One: _____

Two: _____

Question 22

(7 marks)

- (a) Describe **two** features specific to Web 3.0. (4 marks)

One: _____

Two: _____

(b) State **three** ways in which Web 3.0 has affected the use of web-enabled devices. (3 marks)

One: _____

Two: _____

Three: _____

Question 23

(6 marks)

Describe in detail **two** benefits to a web-development company of using a Content Management System (CMS).

One: _____

Two: _____

Section Three: Extended answer

20% (39 Marks)

This section contains **one (1)** question. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 50 minutes.

Question 24

(39 marks)

Home networks are becoming popular as technology allows users to network products throughout the home. A home owner has asked you to investigate what is required to install a wireless network in a new home they are building.

Specifically, they want to ensure the secure management of their home business, which has a client base of over 1000 customers, have access to connected devices throughout the house and share files and printers. They also want advice on where to locate networked gaming consoles and televisions in the house.

- (a) Identify the communication standard that is best suited to this network and provide **three** characteristics of this communication standard. (4 marks)

Communication standard: _____

One: _____

Two: _____

Three: _____

Question 24 (continued)

- (c) Describe **three** strategies that you will advise the home owner to use to ensure the security of their business information within the wireless network. (9 marks)

One: _____

Two: _____

Three: _____

- (d) Explain why the home owner should implement a Disaster Recovery Plan (DRP) for their home business. (4 marks)

- (e) You are aware that the DRP will require a data backup strategy. Identify **three** backup techniques that you will be suggesting the home owner implement and explain why each technique is appropriate. (6 marks)

One: _____

Two: _____

Three: _____

Question 24 (continued)

- (f) The home owner has heard the expression 'data in the cloud' and is wondering if their client information should be transferred to an online data storage method. To assist their understanding, outline **one** advantage and **one** disadvantage of utilising data in the cloud. (4 marks)

Advantage: _____

Disadvantage: _____

- (g) The wireless network has now been installed in the home but the home owner has noticed that there are issues with the reliability of the internet connection when two or more devices are streaming a video. Identify **two** reasons why these issues could be occurring and outline a different solution for each that could be implemented in the design of the Local Area Network (LAN). (6 marks)

One: _____

Two: _____

End of Section Three

See next page

Section Four: Scenario

40% (61 Marks)

This section contains **one (1)** question. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 70 minutes.

Question 25

(61 marks)

You are employed by a marketing company that has just won a contract to produce a digital solution for a new client, Seasons Building and Development.

Seasons Building and Development is building luxury coastal apartments at a location one hour north of Perth and your brief is to advertise these apartments in such a way as to attract prospective buyers. Stylish one-bedroom and two-bedroom apartments are being built as well as two stunning penthouses. Each apartment will have high-quality finishes, sweeping ocean views, an expansive balcony, private access to the beach and two undercover parking bays. The complex will also feature a pool and a gymnasium and be just a short drive from supermarkets, cafés, restaurants and specialty stores.

Seasons Building and Development has stipulated that the marketing materials must provide information about the location of the apartments, floor plans, the quality finishes, features such as the pool and gymnasium and the lifestyle that these apartments offer. The client has also indicated that they want the marketing materials to appeal to a wide range of potential buyers, and to include information about their company and their contact details.

The apartments will be called 'Seasons by Seaside' and will be marketed in **two** ways:

- an application (app) that can be downloaded onto a smart phone or tablet device
- a website.

- (a) Identify **one** project management approach you will use and explain why this approach is appropriate. (4 marks)

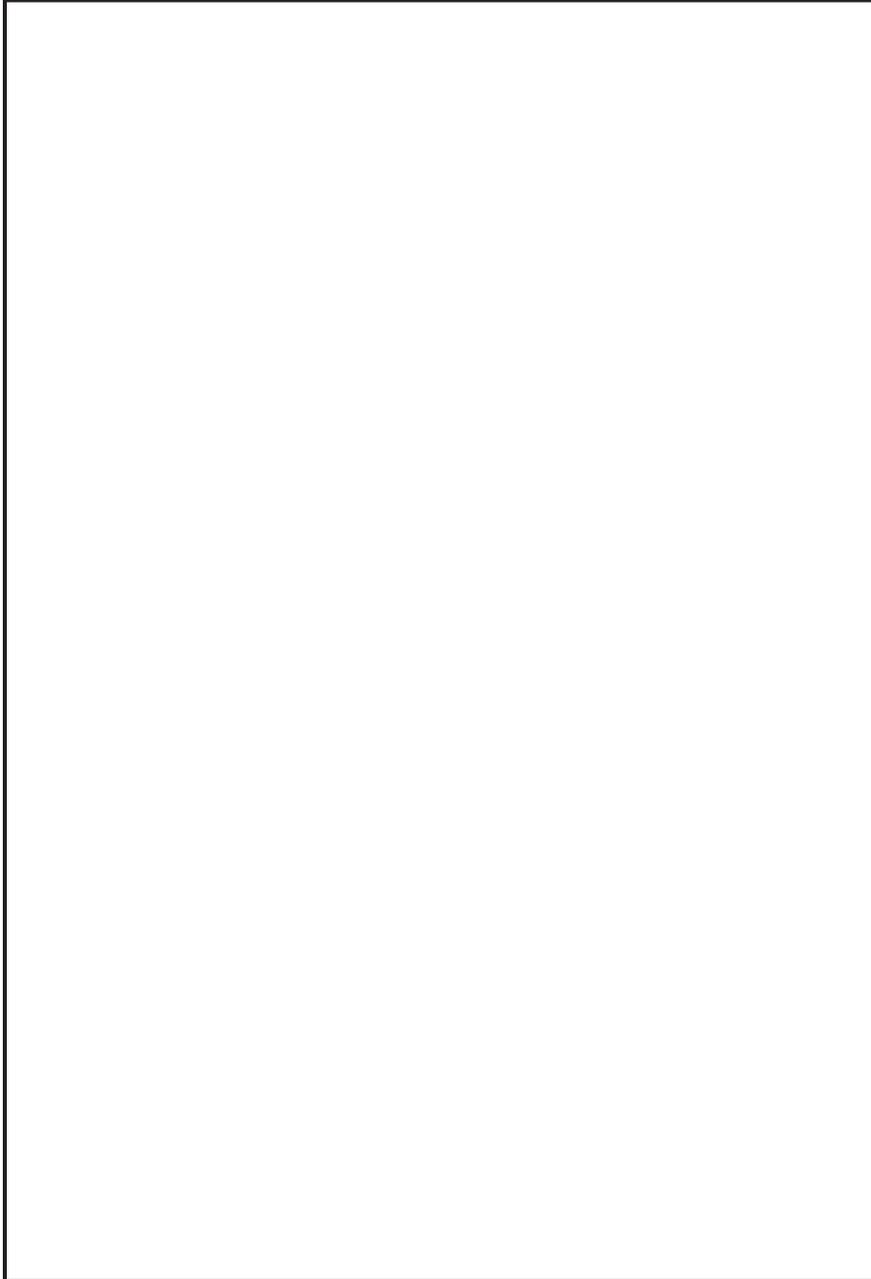
Question 25 (continued)

- (e) Design the landing page (first page) of the app in the space provided on page 23 to promote the Seasons by Seaside apartments. You may use the space below to plan your response.

Your design must include annotations and show the:

- i. layout and structure of your intended design (5 marks)
- ii. elements and principles of design used and the relationship between them (3 marks)
- iii. organisation of content suitable for the given digital medium (3 marks)
- iv. navigation controls suitable for the given digital medium. (3 marks)

Planning: anything written on this page will **not** be marked.



See next page

Question 25 (continued)

- (f) Design the home page of the website on page 25 to promote the Seasons by Seaside apartments. You may use the space below to plan your response.

Your design must include annotations and show the:

- i. layout and structure of your intended design (5 marks)
- ii. elements and principles of design used and the relationship between them (3 marks)
- iii. organisation of content suitable for the given digital medium (3 marks)
- iv. navigation controls suitable for the given digital medium. (3 marks)

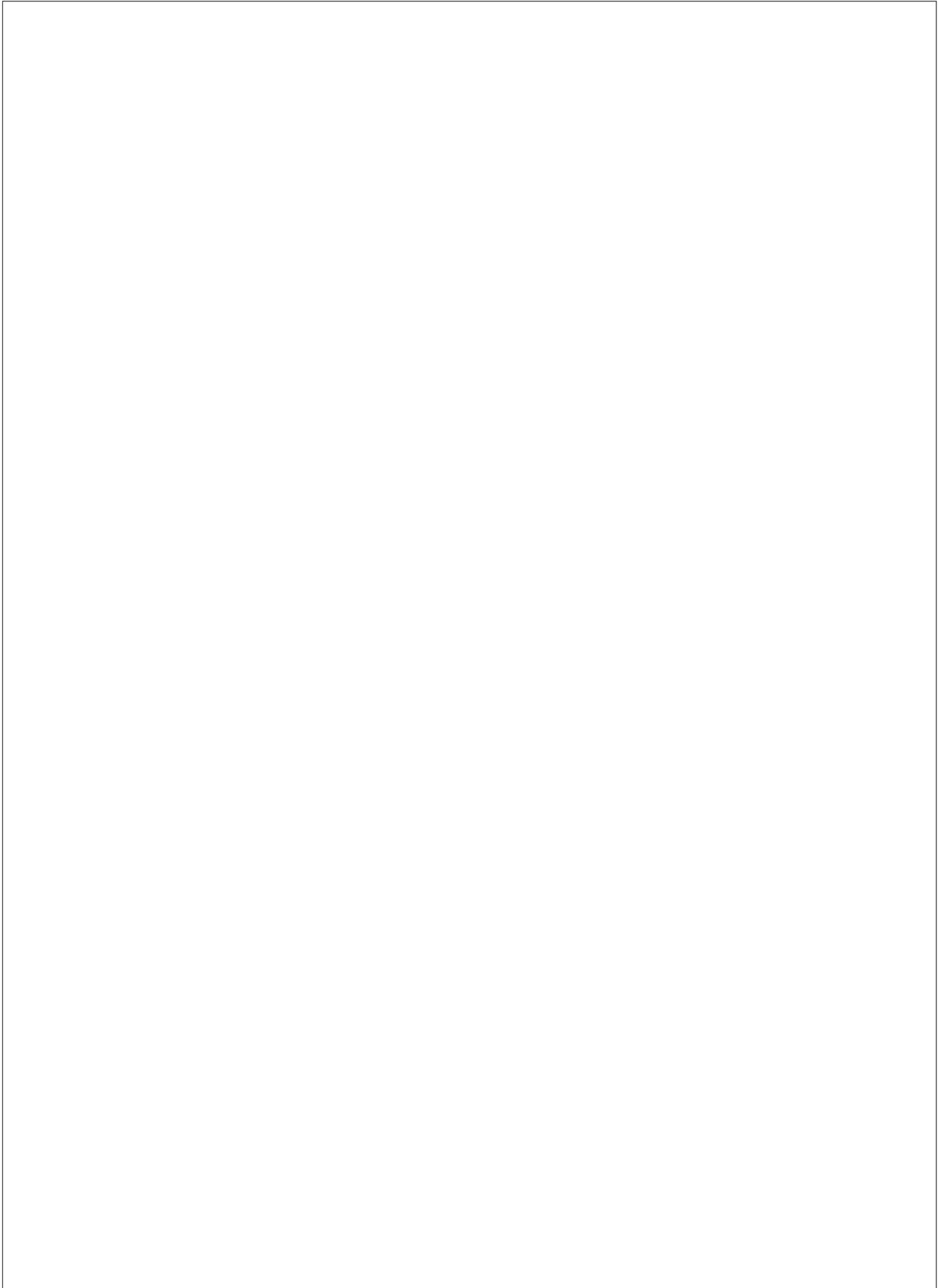
Planning: anything written on this page will **not** be marked.



See next page

Additional working space

Question number: _____

A large, empty rectangular box with a thin black border, occupying most of the page below the question number line. It is intended for the student to provide their answer or show their work.

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