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Name: _____

Class: _____

PRACTICE EXAM

UNIT 1 COMPUTING

Reading time: 10 minutes
Writing time: 80 minutes

QUESTION BOOKLET

Section	Number of questions	Number of questions to answer	Marks available	Marks achieved
A	15	15	15	
B	13	13	45	
Total			60	

Grade: _____
Scale:

A+	54–60	A	48–53	B	42–47	C	36–41	D	30–35	E	15–29	UG	0–14

This practice examination relates to Chapters 1–5 of the *Computing VCE Units 1 & 2* (Lawson et al, 2016, 6th edition, Cengage Learning Australia) textbook.

Section A

> ## Instructions for Section A
>
> Circle the correct answer. Choose the response that is **correct** or that **best answers** the question.
>
> A correct answer scores 1 and an incorrect answer scores 0.
>
> Marks will **not** be deducted for incorrect answers.
>
> No marks will be given if more than one answer is completed for any question.

QUESTION 1

Qualitative data is composed of:

A opinions.

B measurable facts.

C primary data.

D data obtained from observation.

QUESTION 2

How are data and information related?

A Information is processed into data.

B Only quantitative data can be turned into information.

C Data is processed into information.

D Information is harder than data for humans to understand.

QUESTION 3

A local area network:

A has only a few computers in it.

B can cover an entire suburb.

C is encrypted to protect its users.

D is geographically limited in size.

QUESTION 4

A disadvantage of wireless networking is:

A security.

B the massive area it can cover.

C the need to lay cables.

D its flexibility.

QUESTION 5

Interviews are mainly used to collect:

A personal and sensitive information.

B opinions and reactions.

C quantitative data.

D secondary data.

QUESTION 6

In project management, a milestone:

A measures how long a project has been running.

B is a point of major progress.

C marks the end of the project.

D is inserted at the beginning of every task.

QUESTION 7

A contingency plan in a project:

A sets out how each task will be undertaken.

B is a data disaster recovery plan.

C is a pre-prepared response to something going wrong.

D should be prepared as soon as disaster strikes.

QUESTION 8

An ethical dilemma occurs when:

A there are two choices, and they are of equal desirability.

B someone breaks a rule.

C something bad happens.

D a manager does not know how to handle a problem.

QUESTION 9

An 'accessible' website is good for:

A people who are not good at using computers.

B people with slow internet connections.

C people looking for information.

D people with disabilities.

QUESTION 10

Efficiency is:

A a measure of quality.

B the same as effectiveness.

C a measure of how much time, money and effort are needed.

D being fast.

QUESTION 11

What is produced during the analysis stage of website development?

A A list of constraints

B A testing table

C Evaluation criteria

D A website

QUESTION 12

The evaluation stage of the problem-solving methodology differs from testing because:

A testing checks that the system works, while evaluation checks that it is achieving its goals.

B testing checks that data is accurate, while evaluation checks that the system works.

C testing is carried out by developers, while evaluation is conducted by the client.

D hardware is tested, while software is evaluated.

QUESTION 13

An IPO chart is used to:

A design the structure of websites.

B plan the fields required in a database.

C create an overview of how a solution is structured hierarchically.

D design data and processing requirements.

QUESTION 14

A pie chart would be the best tool to show:

A the trend of an individual's weight loss over a period of time.

B how sales of meat pies change over the course of a year.

C the relative numbers of male and female students in a class.

D primary data.

QUESTION 15

Infographics avoid using:

A contrast.

B too much text.

C visual cues.

D colour.

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Section B

Instructions for Section B

Answer **all** questions in the space provided.

QUESTION 1

Explain the main difference between a theory and a hypothesis.

(2 marks)

QUESTION 2

A researcher writes the following statement:

Of secondary school mathematics teachers teaching students in Years 7–10, 61% have studied mathematics at university to at least second-year level.

a Is this qualitative or quantitative data?

(1 mark)

b Explain how to distinguish between the two types of data.

(2 marks)

QUESTION 3

Zahra, a researcher, says she wants to collect primary data about a particular issue. Her research assistant, Jason, suggests that it would be better to gather secondary data about the same issue.

a Under what circumstances would Zahra's plan be appropriate?

(2 marks)

b Identify two benefits of using Jason's plan.

(2 marks)

QUESTION 4

A list of tasks typical to the creation of a solution appears in the left-hand column of Table 1.1. In the right-hand column of Table 1.1, identify the stage of the problem-solving methodology (PSM) in which each of the tasks would be undertaken.

Table 1.1

TASK	PSM stage
List evaluation criteria	
Write user documentation	
Interview users about the ease of use of the new system that has been recently installed	
Conduct user acceptance testing	

(4 marks)

QUESTION 5

Alan, a website developer, notices that a page on a website he is visiting has poor contrast and suffers from inconsistency. List two examples each of what he could be detecting on the site, in terms of:

a poor contrast.

(2 marks)

b inconsistency.

(2 marks)

QUESTION 6

Jacob produces the following presentation of data.

FamilyName	GivenName	Income ($)	PhoneNumber
Bird	Gregory	103 567	+1385 3945 4944
Chang	Hyun	78 345	(04) 4956 3939
Robinson	Marilyn	93 567	0402 395 495

a Identify two conventions Jacob used in the table, and explain how they contribute to improving the communication of the data.

(4 marks)

b Explain why it is important to use relevant conventions when presenting data.

(2 marks)

QUESTION 7

Jennifer is a designer of various information products. Tick [✓] the relevant boxes below to identify the appropriate design tools (from the left column) that would help Jennifer to design each of the products.

Tools	Website	Spreadsheet	Database
IPO chart			
Mock-up			
Site map			

(3 marks)

QUESTION 8

Donald decides to name the homepage file for his website 'My Landing Page/homepage.html'. Identify two reasons why this name would not be suitable.

(2 marks)

QUESTION 9

Pablo is inserting two images onto a webpage. One uses GIF format, and the other is saved as JPEG. Suggest what each image probably contains.
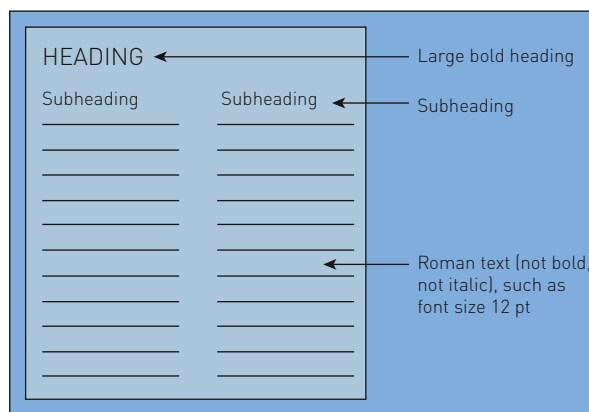
a GIF

(2 marks)

b JPEG

(2 marks)

QUESTION 10

A website's design includes the following sketch.

Identify the design element this sketch demonstrates.

(1 mark)

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QUESTION 11

Choose a contemporary issue associated with the use of information systems that is causing conflict. Write a report (200–300 words) that identifies the stakeholders, explains how the issue is causing conflict between them and suggests a possible way to resolve the conflict.

Chosen issue: _____

Report

(6 marks)

QUESTION 12

There are various methods for referencing the sources of research data, such as Harvard, Chicago, APA and IEEE. However, all methods are used to acknowledge the use of intellectual property. Why is it important to acknowledge the use of intellectual property?

(2 marks)

QUESTION 13

Amir, a business owner, is discussing the storage and computing hardware at his business with his daughter, Jamila. He says it is getting it old and he wants to replace it soon. He makes a list of the hardware and software he needs to buy. Jamila suggests that he move his business into cloud storage and cloud computing instead.

a Identify and explain the advantages and disadvantages of following Amir's plan.

(2 marks)

b Identify and explain the advantages and disadvantages of following Jamila's plan.

(2 marks)

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