MARKER CODE		Student Personal Identification Number

South Pacific Form Seven Certificate

INFORMATION AND COMMUNICATIONS TECHNOLOGY

2020

QUESTION and ANSWER BOOKLET (1)

Time allowed: Three hours

(An extra 10 minutes is allowed for reading this paper)

INSTRUCTIONS

Write your **Student Personal Identification Number (SPIN)** in the space provided on the top right-hand corner of this page.

Answer **ALL QUESTIONS**. Write your answers in the spaces provided in this booklet.

If you need more space for answers, ask the Supervisor for extra paper. Write your SPIN on all extra sheets used and clearly number the questions. Attach the extra sheets at the appropriate places in this booklet.

Major Learning Outcomes (Achievement Standards)	Skill Level & Number of Questions				Weight/ Time
	Level 1 *Uni-structural*	Level 2 *Multi-structural*	Level 3 *Relational*	Level 4 *Extended Abstract*	
Strand 1: Digital Media Understand the differences between Open Source and Proprietary software and be able to use digital media concepts in ICT to design and develop a media product.	3	1	1	1	12% 36 min
Strand 2: Website Development Understand the key concepts of web development and the use of web-driven databases.	3	2	1	-	10% 30 min
Strand 3: Programming Understand programming concepts through the use of appropriate programming languages.	5	2	1	-	12% 36 min
Strand 4: Microprocessor Control Understand the principles of microprocessor control and the use of programmable microprocessors to control embedded devices.	1	1	1	-	6% 18 min
Strand 5: Issues in ICT Understand the major concerns with the use of ICT and the important measures that can be used to minimize the concerns or provide some level of safety and security.	6	2	2	1	20% 60 min
TOTAL	**18**	**8**	**6**	**2**	**60% 180 min**

Check that this booklet contains pages 2–13 in the correct order and that none of these pages are blank.

HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

STRAND 1: DIGITAL MEDIA

Assessor's use only

1.1 **Circle the letter that BEST represents your answer.**

Software that can be freely accessed and modified is

A. middleware.
B. packaged software.
C. proprietary software.
D. open source software.

Unistructural	
1	
0	
NR	

1.2 State the purpose of digital media.

_____

_____

_____

Unistructural	
1	
0	
NR	

1.3 Graphics cards take data from a CPU and turn them into pictures.

Describe **one** important feature of a graphics card that a PC Gamer would look at when buying the card.

_____

_____

_____

_____

_____

Multistructural	
2	
1	
0	
NR	

1.4 Identify **one** key feature of a graphics design tool.

_____

_____

_____

Unistructural	
1	
0	
NR	

Assessor's use only

1.5	Graphic designers create visual concepts by hand or using computer software. Discuss the importance of using appropriate software for graphics design tasks. Use examples to support your answer.	

Extended Abstract	
4	
3	
2	
1	
0	
NR	

1.6	Explain the process for designing and implementing an animated object.	

Relational	
3	
2	
1	
0	
NR	

STRAND 2: WEBSITE DEVELOPMENT

Assessor's use only

2.1	Define the term **website**. _____ _____ _____	**Unistructural** 1 | 0 | NR |	
2.2	The success of any website depends entirely on how it is designed. Outline **two** principles of good website design. _____ _____ _____ _____	**Multistructural** 2 | 1 | 0 | NR |	
2.3	**Circle the letter that BEST represents your answer.** The abbreviation HTML stands for A. Hypertext Main Language. B. Hypertext Mark-up Language. C. Hypertext Machine Language. D. Hyperlink Textual Mode Language.	**Unistructural** 1 | 0 | NR |	
2.4	CSS style sheets are preferred by web designers for website development. Explain **two** advantages of using CSS in designing websites. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	

Assessor's use only

		Relational 3 | 2 | 1 | 0 | NR
2.5	State **one** advantage of validating a website.	**Unistructural** 1 | 0 | NR
2.6	The validation process of a website involves five steps. List the **five** steps involved in the validation process of websites.	**Multistructural** 2 | 1 | 0 | NR

STRAND 3: PROGRAMMING

Assessor's use only

	Use the information below to answer questions 3.1 and 3.2. Computer science is the study of problems, problem-solving, and the solutions that come out of the problem-solving process.	
3.1	Define **problem solving**. _____ _____ _____	**Unistructural** 1 | 0 | NR
3.2	Outline the steps of the problem-solving process. _____ _____ _____ _____ _____ _____	**Multistructural** 2 | 1 | 0 | NR
3.3	Define the **top-down design approach** in computer programming. _____ _____ _____	**Unistructural** 1 | 0 | NR
3.4	State **one** effectiveness of top-down design tools in programming. _____ _____ _____	**Unistructural** 1 | 0 | NR
3.5	Define **programming language**. _____ _____ _____	**Unistructural** 1 | 0 | NR

Assessor's use only

3.6	State an example of a programming language. _____ _____ _____	**Unistructural** 1 | 0 | NR |
3.7	There are three basic types of logic structures in programming. List any **two** types of logic structures. _____ _____ _____ _____ _____ _____	**Multistructural** 2 | 1 | 0 | NR |
3.8	Write a simple algorithm for a program that accepts two numbers from the user and computes the sum. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 | 2 | 1 | 0 | NR |

STRAND 4: MICROPROCESSOR CONTROL

Assessor's use only

4.1	State an example of an embedded device. _____ _____ _____	**Unistructural** 1 0 NR
4.2	Outline the need for programmable microprocessors. _____ _____ _____ _____ _____	**Multistructural** 2 1 0 NR
4.3	Why are programmable microprocessors important? Give examples to support your answer. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 2 1 0 NR

STRAND 5: ISSUES IN ICT

Assessor's use only

5.1	**Circle the letter that BEST represents your answer.** An ethical issue relating to using another person's work and ideas as your own without acknowledging the original source is A. cookies. B. malware. C. phishing. D. plagiarism.	**Unistructural** 1 0 NR
5.2	State an ethical concern with privacy. _____ _____ _____ _____	**Unistructural** 1 0 NR
5.3	Many organisations constantly compile information about people. Outline the ethical concerns with corporate confidentiality. _____ _____ _____ _____ _____ _____	**Multistructural** 2 1 0 NR
5.4	The essential element that controls how computers are used today is ethics. Outline **two** appropriate measures that can be used to minimise the effect of ethical concerns in ICT. _____ _____ _____ _____ _____	**Multistructural** 2 1 0 NR

Assessor's use only

5.5	State an environmental concern caused by the growing use of ICT. _____ _____ _____	**Unistructural** 1 0 NR
5.6	State **one** challenge faced by Pacific Island countries in addressing the environmental concerns associated with ICT. _____ _____ _____	**Unistructural** 1 0 NR
5.7	Explain effective ways that technology can be used to address environmental concerns associated with ICT. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 2 1 0 NR

Assessor's use only

5.8	Discuss **two** health issues that are directly related to using ICT equipment.	

Extended Abstract	
4	
3	
2	
1	
0	
NR	

Assessor's use only

5.9	Identify a computer safety or security concern in ICT. _____ _____ _____	**Unistructural** 1 0 NR
5.10	**Circle the letter that BEST represents your answer.** Computer criminals who create and distribute malicious programs are A. crackers. B. antispies. C. cyber traders. D. identity thieves.	**Unistructural** 1 0 NR
5.11	Explain **two** major goals of specific cyber legislation. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 2 1 0 NR

THE END