**Sample Assessment Tasks**

Computer Science

General Year 12

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# Sample assessment task

# Computer Science – General Year 12

## Task 1 – Unit 3

**Assessment type:** Project

**Conditions**

Period allowed for completion of the task: two weeks in class

**Task weighting**

10% of the school mark for this pair of units

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**Scenario**

The Ballajura Independent Supermarket is a family-owned and run business. The owners are currently considering updating their standalone computers. They have hired a system analyst to provide some direction about the updating of the technology for the business.

Following a preliminary study, the consultant produced the following analysis of the business.

* The supermarket is split into a number of departments, such as fruit and veg, butcher, bakery, frozen foods etc. Each department has a manager who is responsible for all reordering of stock. Each department sells an assortment of goods.
* At the end of each day, the manager receives from each department a list of stock which is running low. The manager analyses the low stock list and sorts the items into supplier lists. The lists are sent through to the administration department where the order forms are completed and emailed to the specific supplier who, in turn, emails back a confirmation of the order. When the ordered items are delivered a few hours later, someone from the administration department checks the invoice/delivery slip against the order and then updates the stock lists.
* Employees are paid every Thursday, based on the hours that they worked during the previous Monday to Sunday. The wages are calculated manually. All employees work a set number of hours, plus they also have the opportunity to work overtime on the weekends and on public holidays.
* The business is planning to open a small ‘cash only’ café selling ‘Burgers, made to order’ and cold drinks.

The system analyst also described the following steps within the ordering system:

* At the end of each day, the manager receives from each department a list of stock which is running low. The manager records the items of stock that need to be replenished into supplier lists.
* The lists are sent through to the administration department where the order forms are filled out and faxed to the specific supplier who, in turn, provides a confirmation of the order.
* When the ordered items are delivered, someone from the administration department updates the stock lists.

**Systems analysis**

1. Describe the system development methodology that the systems analyst could use to investigate and implement an Information Technology solution for the Ballajura Independent Supermarket. (2 marks)
2. (a) List and describe **three** methods that the system analyst would use to collect information about how the Ballajura Independent Supermarket is operating. (9 marks)

 (b) Select **one** of the methods listed for 2(a) and explain why that method would be suitable to collect information on the operation of the Ballajura Independent Supermarket.

 (2 marks)

1. Explain why a data flow is labelled using a noun. (2 marks)
2. Create a Context Diagram for the Ballajura Independent Supermarket. (5 marks)
3. The systems analyst has recommended that the owners of the Ballajura Independent Supermarket replace their office computer system. You are to develop a report that documents your research into **two** different computer systems for the Ballajura Independent Supermarket. Your report will need to recommend **one** system that meets the requirements of the Ballajura Independent Supermarket. Your report should include the following sections:
* Statement of specification (2 marks)
* Hardware (input, output, processing and storage) (8 marks)
* Software (operating system and application software) (4 marks)
* Final recommendation of a computer system. (3 marks)
1. Create an ICT code of conduct, suitable for the employees of the Ballajura Independent Supermarket. (6 marks)

 **Total = 43 marks**

#  Marking key for sample assessment task 1 – Unit 1

1. Describe the system development methodology that the systems analyst would use to investigate and implement an Information Technology solution for the Ballajura Independent Supermarket.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Provides a description of the system development methodology | 2 |
| Provides a limited description of the system development methodology | 1 |
| **Answer could include, but is not limited to:** |
| The system development methodology may be either ‘Prototyping’ **or** the ‘Systems development life cycle approach’, depending upon the rationale provided within the description. |

1. (a) List and describe **three** methods that the system analyst would use to collect information about how the Ballajura Independent Supermarket is operating.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly lists **three** data collection methodologies | 1–3(1 mark each) |
| **Subtotal** | **3** |
| Provides a description of the data collection methodology | 2(per method) |
| Provides a limited description of the data collection methodology | 1(per method) |
| **Subtotal** | **6** |
| **Total** | **9** |
| **Answer could include, but is not limited to:** |
| * Questionnaires: documents with questions completed and returned by a person who works in the business or a person who engages with the business
* Interviews: questions responded to by a person who works in the business or a person who engages with the business
* Observations: a record of the business made through observation
* Document analysis: a review of documents used within the system
 |

 (b) Select **one** of the methods listed for 2(a) and explain why that method would be suitable to collect information of the operation of the Ballajura Independent Supermarket.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Provides an explanation of the use of the selected data methodology | 2 |
| Provides a limited explanation of the use of the selected data methodology | 1 |
| **Answer could include, but is not limited to:** |
| * Questionnaires: inexpensive, suited to less complex questions and the busy supermarket and casual employees
* Interviews: expensive, better suited to complex questions and would be used to collect information from the owner and department managers
* Observations: expensive, requires high level of permission, suited to multiple items of investigations
* Document analysis: expensive, better suited to establishing a detailed analysis of organisation documentation and workflow and would be used to collect information of the administrative operation of the business
 |

1. Explain why a data flow is labelled using a noun.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Provides an explanation for the reason why a data flow is labelled using a noun | 2 |
| Provides a limited explanation for the reason why a data flow is labelled using a noun | 1 |
| **Answer could include, but is not limited to:** |
| A data flow describes a single piece of data or logical collection of data; it is not an object (Entity) or an action (Process). |

1. Create a Context Diagram for the Ballajura Independent Supermarket.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly draws and labels the Context Diagram for the Ballajura Independent Supermarket | 1–5 |
| **Correctly labelled diagram** |
| Context.pngBallajura IndependentSupermarket (1)Supplier (1)Delivery note details (1)Order details (1) Yourdon/DeMarco diagrammatic conventions correctly applied = (1) |

1. The systems analyst has recommended that the owners of the Ballajura Independent Supermarket replace their office computer system. You are to develop a report that documents your research into **two** different computer systems for the Ballajura Independent Supermarket. Your report will need to recommend **one** system that meets the requirements of the Ballajura Independent Supermarket. Your report should include the following sections:
* Statement of specification
* Hardware (input, output, processing and storage)
* Software (operating system and application software)
* Final recommendation of a computer system.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Statement of specification* provides an appropriate statement of specification for the Ballajura Independent Supermarket in the case study
* provides a limited statement of specification for the Ballajura Independent Supermarket in the case study
 | 21 |
| **Subtotal** | **2** |
| Hardware * provides an appropriate description of the recommended hardware components for the **two** computer systems:
* input (1)
* output (1)
* processing (1)
* storage (1)
 | 1–4(for each computer system) |
| **Subtotal** | **8** |
| Software* provides a description of the operating system for the two computer systems
* provides a description of the application software for the two computer systems
 | 1–21–2 |
| **Subtotal** | **4** |
| Final recommendation* provides a justified description of a recommended computer system
* provides an appropriate description of a recommended computer system
* provides a limited description of a recommended computer system
 | 321 |
| **Subtotal** | **3** |
| **Total** | **17** |

1. Create an ICT code of conduct, suitable for the employees of the Ballajura Independent Supermarket.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * provides a detailed and appropriate ICT code of conduct
* provides an appropriate ICT code of conduct
* provides a limited ICT code of conduct
 | 5–63–41–2 |
| **Total** | **6** |

# Sample assessment task

# Computer Science – General Year 12

## Task 2 – Unit 1

**Assessment type:** Theory test

**Conditions**

Time for the task: 40 minutes in class under test conditions

**Task weighting**

4% of the school mark for this pair of units

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1. List the **six** stages of the Systems Development Life Cycle Approach. (6 marks)

Stage 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage 5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage 6: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List **three** differences between secondary storage and primary storage. (3 marks)

Difference 1:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Difference 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Difference 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Describe the purpose of a Standard Operating Environment (SOE). (3 marks)

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The table below lists common input and output devices, some of which can be used for both input and output. Complete the table by placing a tick in the input, output or both input and output columns for each device. (6 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **Input** | **Output** | **Both input and output** |
| Mouse  |  |  |  |
| Speaker  |  |  |  |
| Printer  |  |  |  |
| Microphone  |  |  |  |
| Touch screen  |  |  |  |
| Scanner  |  |  |  |

1. Based on the information below:
	1. Identify the computer system that you would recommend for a business producing commercial videos.
	2. List **four** reasons for your choice. (5 marks)

|  |  |  |
| --- | --- | --- |
| **Product components** | **System 1** | **System 2** |
| CPU  | Intel Core 2 Duo 3.2 GHz processor  | Intel i7 3.2 GHz processor  |
| RAM  | 2 GB RAM  | 8 GB RAM  |
| Hard Drive  | 500 GB  | 2 TB  |
| Optical Drive  | 52 speed CD RW  | 16 speed DVD RW  |
| VGA Card  | On board video  | 768 MB NVIDIA GTX 460 PCI-E with mini HDMI  |
| Monitor  | 17” LCD panel  | 24” LCD panel  |
| Other  | Swann DV Home Pro Firewire card  | Swann DV Home Pro Firewire card  |

System recommended:

System 1 🞎 System 2 🞎

Reason 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reason 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reason 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reason 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. State the role of each of the following parts of the central processing unit. (5 marks)

Register: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Arithmetic logic unit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Program counter: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

System clock: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Control unit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Describe the purpose of the boot process. (2 marks)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Describe the fetch-execute cycle. (4 marks)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Explain **two** reasons, supported by examples, why an organisation would develop an ICT code of conduct. (6 marks)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Total = 40 marks**

# Marking key for sample assessment task 2 – Unit 1

1. List the **six** stages of the Systems Development Life Cycle Approach.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly lists the stages of the systems development life cycle approach | 1–6(1 mark for each stage) |
| **Answer:** |
| * Preliminary analysis
* Analysis
* Design
* Development
* Implementation
* Evaluation and maintenance
 |

1. List **three** differences between secondary storage and primary storage.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly identifies differences between secondary storage and primary storage | 1–3(1 mark for each difference) |
| **Answer could include, but is not limited to:** |
| Storage medium* primary memory is stored on semi-conductors whereas secondary memory is stored on optical or magnetic media (Note: exception Solid State Drives)

Speed* primary storage provides faster data access than secondary storage
* primary storage operates at a speed compatible with the processing speed of a CPU

Volatility* generally, primary storage (Random Access Memory [RAM]) stores data for a limited time while power is supplied to the computer, whereas secondary storage stores data after the computer is turned off

Access* data needs to be transferred from secondary storage to primary storage before the computer can use the data

Location* primary storage is usually located on the computer motherboard whereas secondary storage is located external to the motherboard

Cost* primary storage is expensive per Gigabyte, when compared to magnetic media
 |

1. Describe the purpose of a Standard Operating Environment (SOE).

|  |  |
| --- | --- |
|  **Description** | **Marks** |
| Provides a detailed description of the purpose of an SOE | 3 |
| Provides a description of the purpose of an SOE | 2 |
| Provides a limited description of the purpose of an SOE | 1 |
| **Answer could include, but is not limited to:** |
| A standard operating environment is the common installation on all computers of an operating system and the required suite of application software within an organisation or worksite. An SOE provides: * reduced costs
	+ maintenance (hardware, software and operating system) costs
	+ purchase cost of software
	+ total cost of ownership
	+ deployment cost
* a consistent software base
* improved service support
* software deployment is quicker and maintained more easily
* improved computer and network functionality
 |

1. The table below lists common input and output devices, some of which can be used for both input and output. Complete the table by placing a tick in the input, output or both input and output columns for each device.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly identifies whether each device is an input, or output device or both input and output device | 1–6(1 mark each) |
| **Answer** |
| **Device**  | **Input** | **Output** | **Both input and output** |
| Mouse  | ✓ |  |  |
| Speaker  |  | ✓ |  |
| Printer  |  | ✓ |  |
| Microphone  | ✓ |  |  |
| Touch screen  |  |  | ✓ |
| Scanner  | ✓ |  |  |

1. Based on the information below:
* Identify the computer system that you would recommend for a business producing commercial videos.
* List **four** reasons for your choice.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly identifies the most suitable computer system for producing commercial videos | 1 |
| **Subtotal** | **1** |
| Correctly lists **four** reasons for selecting computer system 2 | 1–4(1 mark for each reason) |
| **Subtotal** | **4** |
| **Total** | **5** |
| **Recommended computer system:** |
| Computer system 2 |
| **Reasons could include, but are not limited to:** |
| * faster CPU
* larger capacity RAM
* larger hard disk drive
* larger capacity optical drive
* larger screen size of the LCD monitor
 |

1. State the role of each of the following parts of the central processing unit.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly states the role of the part of the central processing unit | 1–5(1 mark for each part) |
| **Answer could include, but is not limited to:** |
| * Register: a small amount of storage available to the central processing unit
* Arithmetic logic unit: performs integer arithmetic and logical operations
* Program counter: a register that contains the address (location) of the instruction being executed at the current time, or can be next address
* System clock: regulates the function and timing of all computer functions of the processor
* Control unit: directs the operation of the processor
 |

1. Describe the purpose of the boot process.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Provides a description of the boot process  | 2 |
| Provides a limited description of the boot process | 1 |
| **Answer could include, but is not limited to:** |
| The boot process tests the functionality of key operations of the hardware and software components of a computer prior to loading the operating system. **Note:** The boot process is complex, lengthy and dependent upon the hardware platform.  |

1. Describe the fetch-execute cycle.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Provides a description of the fetch-execute cycle, including the role of the program counter | 4 |
| Provides a description of the fetch-execute cycle | 3 |
| Provides a brief description of the fetch-execute cycle | 2 |
| Lists the stages of the fetch-execute cycle | 1 |
| **Total** | **4** |
| **Answer could include, but is not limited to:** |
| The fetch-execute cycle involves a processor fetching a program instruction from its memory, determining what the instruction wants to do, and carrying out those actions. The cycle includes the following stages: * fetch the instruction
* decode the instruction
* execute the instruction
* store the result.

The result generated by the execute phase is stored in the main memory, and/or sent to an output device. The program counter is updated with feedback from the arithmetic logic unit, to a different address from which the next instruction will be fetched. |

1. Explain **two** reasons supported by examples, why an organisation would develop an ICT code of conduct.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| **Reason 1** |
| Provides an explanation of why an organisation would develop an ICT code of conduct, using suitable examples | 3 |
| Provides an explanation of why an organisation would develop an ICT code of conduct | 2 |
| Provides a limited explanation why an organisation would develop an ICT code of conduct | 1 |
| **Subtotal** | **3** |
| **Reason 2** |
| Provides an explanation of why an organisation would develop an ICT code of conduct, using suitable examples | 3 |
| Provides an explanation of why an organisation would develop an ICT code of conduct | 2 |
| Provides a limited explanation why an organisation would develop an ICT code of conduct | 1 |
| **Subtotal** | **3** |
| **Total** | **6** |
| **Answer could include, but is not limited to:** |
| A code of conduct is a voluntary set of rules that people agree to follow or abide by when using an organisation’s computer hardware, software or resources. It is not a legal document, but is considered binding once agreement is provided. The reasons for developing an ICT code of conduct could include:* ensuring a safe, reliable ICT environment
* preventing misuse of ICT resources by employees
* ensuring the security of personal data
* ensuring the security of organisational data.
 |

# Sample assessment task

# Computer Science – General Year 12

## Task 3 – Unit 1

**Assessment type:** Practical test

**Conditions**

Time for the task:

Two periods in class

* Period 1: for the planning and drafting of the spreadsheet (you will **not** have access to a computer)
* Period 2: for the practical test.

**Task weighting**

5% of the school mark for this pair of units

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This practical test will be conducted over two class periods. The first period is allocated to planning a spreadsheet, while the second period is allocated to creating your spreadsheet.

Your task is to create a spreadsheet that will calculate the weekly pay for the employees of the Ballajura Independent Supermarket. The tables below provide the data you are to use in your spreadsheet. As the tables are linked, your spreadsheet will require the use of lookup tables.

The spreadsheet will need to:

* calculate the total daily pay for each employee
* calculate the total weekly pay for each employee, including penalty rates, given the days worked and the total hours worked per day
* calculate the total pay for all employees
* use an appropriate format and structure
* provide appropriate instructions for the user.

|  |
| --- |
| **Staff hours worked last week** |
| **Employee** | **Position** | **Base pay rate ($/hr)** | **Hours worked** |
| **Mon** | **Tues** | **Wed** | **Thurs** | **Fri** | **Sat** | **Sun** |
| Harry Grapes | Butcher | 18 | 9 | 9 | 9 | 0 | 9 | 6 | 10 |
| Marg Plum | Manager | 20 | 9 | 8 | 9 | 9 | 0 | 5 | 5 |
| Monica Nguyen | Checkout | 15 | 9 | 9 | 0 |  | 6 | 9 | 9 |
| Sally Jones | Checkout | 15 | 9 | 9 | 9 | 9 | 6 | 9 | 9 |
| Mary O’Conner | Checkout | 15 | 9 | 9 | 0 | 9 | 6 | 9 | 9 |
|  |  |  |  |  |  |  |  |  |  |
| **Normal business hours** |  | **Penalty rates** |
| **Monday – Sunday** |  |  | **Saturday penalty rate** | **Sunday penalty rate** |
| 6.30am to 5.30pm |  |  | + 35% | + 50% |

**Period 1: Drafting the spreadsheet**

Draft your spreadsheet for the Ballajura Independent Supermarket.

Ensure that your draft provides an indication of the following layout elements:

* employee names
* lookup table
* days worked
* hours worked
* total values
* formatting and structure
* instructions for the user. (7 marks)

Your draft spreadsheet will also need to enable the calculation of the:

* total daily pay for each employee
* total weekly pay for each employee, including penalty rates, given the days worked and the total hours worked per day
* total pay for all employees. (3 marks)

At the end of the first period, you are required to submit your draft spreadsheet.

**Period 2: Creating the spreadsheet**

Collect your draft spreadsheet from your teacher and create a spreadsheet for the Ballajura Independent Supermarket which calculates the:

* daily pay for each employee in the supermarket (3 marks)
* weekly pay for each employee, including overtime, given the days worked and the total hours worked per day (3 marks)
* salary paid for all employees. (6 marks)

Ensure that your spreadsheet:

* uses an appropriate format and structure (3 marks)
* provides appropriate instructions for the user (2 marks)
* reflects all the layout elements in your draft spreadsheet (2 marks)
* provides a complete and workable solution. (3 marks)

 **Total = 32 marks**

At the end of the second period, you are required to:

* resubmit your draft spreadsheet
* email to your teacher your spreadsheet.

# Marking key for sample assessment task 3 – Unit 1

|  |  |
| --- | --- |
| **Description** | **Marks** |
| **Drafting the spreadsheet** |
| Draft spreadsheet provides an indication of the following layout elements:* employee names
* lookup table
* days worked
* hours worked
* total values
* formatting and structure
* instructions for the user
 | 1–7(1 mark each) |
| **Subtotal** | **7** |
| Draft spreadsheet enables the calculation of the:* total daily pay for each employee
* total weekly pay for each employee, including penalty rates, given the days worked and the total hours worked per day
* total pay for all employees
 | 1–3(1 mark each) |
| **Subtotal** | **3** |
| **Creating the spreadsheet**  |
| Spreadsheet enables the calculation of:* the daily pay for each employee in the supermarket
* the weekly pay for each employee, including overtime, given the days worked and the total hours worked per day
* salary paid for all employees

The spreadsheet provides:* an appropriate format and structure
* appropriate instructions for the user
 | 1–31–31–61–31–2 |
| **Subtotal** | **17** |
| Spreadsheet reflects:* all of the layout elements in the draft spreadsheet
* some of the layout elements in the draft spreadsheet
 | 21 |
| **Subtotal** | **2** |
| Spreadsheet provides:* a complete and workable solution
* a partial but workable solution
* an incomplete solution
 | 321 |
| **Subtotal** | **3** |
| **Total** | **32** |