



SAMPLE ASSESSMENT TASKS

APPLIED INFORMATION TECHNOLOGY
GENERAL YEAR 11

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Sample assessment task

Applied Information Technology – General Year 11

Task 3 – Unit 1 – Topic test – Hardware concepts

Assessment type: Short answer

Conditions

Time for the task: 60 minutes

Task weighting

5% of the school mark for this pair of units

1. Identify the type of computer system from the three listed below which is commonly used in a network to enable the sharing of resources and files. Place a tick in the appropriate cell below.

(1 mark)

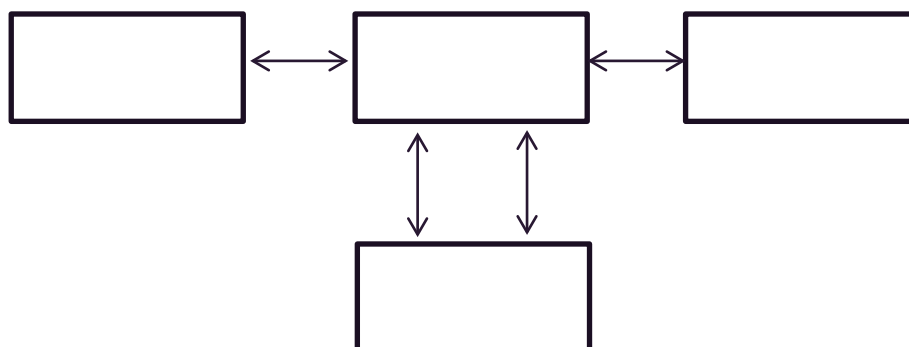
Desktop

Mobile

Server

2. Label the diagram below, indicating the **four (4)** main components of a computer system.

(4 marks)



3. Identify which of the following is **not** a function of the central processing unit. Place a tick in the appropriate cell below.

(1 mark)

Perform calculations such as 30 x 60

Store data that can be retrieved after the computer has been switched off

Perform logical tests such as determining if 4 is less than 9

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

4. Describe the purpose of the following types of computer memory.

(4 marks)

Primary memory: _____

Secondary memory: _____

5. Peripheral devices that are normally attached to a computer system are called input devices or output devices. Identify which of the sentences below best describes an input device. Place a tick in the appropriate cell below.

(1 mark)

Devices that capture images and transfer these images to a computer.

Devices that provide the result of processing any information that a computer creates.

<input type="checkbox"/>
<input type="checkbox"/>

6. The following table provides a list of peripheral devices. Identify each as either an input device or output device. Place a tick in the appropriate cell for each device.

(6 marks)

Type of peripheral device	Input	Output
speakers		
printer		
microphone		
camera		
monitor		
scanner		

7. State **two (2)** reasons why a computer system would require the use of an input device.

(2 marks)

Reason 1: _____

Reason 2: _____

8. a) List **two (2)** peripheral devices required to conduct an internet based videoconference.

(2 marks)

Device 1: _____

Device 2: _____

- b) List two (2) peripheral devices required to record a song and then to edit that song.

(2 marks)

Device 1: _____

Device 2: _____

- c) Name **one (1)** peripheral device that can be used for multiple tasks.

(1 mark)

Device: _____

9. A friend has a computer system at home that is 8 years old. In recent times, different parts of the computer system have not operated properly.

a) After starting the computer, the monitor did not work correctly. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

(3 marks)

Troubleshooting strategy 1: _____

Troubleshooting strategy 2: _____

Troubleshooting strategy 3: _____

b) Another time, the computer would not start. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

(3 marks)

Troubleshooting strategy 1: _____

Troubleshooting strategy 2: _____

Troubleshooting strategy 3: _____

c) Another time, an email could not be printed. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

(3 marks)

Troubleshooting strategy 1: _____

Troubleshooting strategy 2: _____

Troubleshooting strategy 3: _____

10. Three weeks later, similar problems begin to occur again with each of the devices. Provide **two (2)** strategies you would recommend to solve the continuing problems.

(2 marks)

Strategy 1: _____

Strategy 2: _____

Total = 35 marks

Marking key for sample assessment task 3 – Unit 1

1. Identify the type of computer system from the three listed below which is commonly used in a network to enable the sharing of resources and files. Place a tick in the appropriate cell below.

Description	Marks
Correctly identifies the type of computer system	1
Answer	
Server	

2. Label the diagram below, indicating the **four (4)** main components of a computer system.

Description	Marks
Correctly labels the four components	4 (1 mark per component)
Answer	
<p>The diagram shows four rectangular boxes representing computer components. 'Input (1)' is on the left, 'Process (1)' is in the center, 'Output (1)' is on the right, and 'Storage (1)' is at the bottom. Double-headed horizontal arrows connect 'Input (1)' to 'Process (1)', and 'Process (1)' to 'Output (1)'. Two double-headed vertical arrows connect 'Process (1)' to 'Storage (1)'.</p>	

3. Identify which of the following is **not** a function of the central processing unit.

- Perform calculations such as 30×60
- Store data that can be retrieved after the computer has been switched off
- Perform logical tests such as determining if 4 is less than 9

Description	Marks
Correctly identifies the statement that is not the function of the central processing unit	1
Answer	
Store data that can be retrieved after the computer has been switched off	

4. Describe the purpose of the following types of computer memory:
- primary memory
 - secondary memory.

Description	Marks
Primary memory	
Provides a suitable description of primary memory	2
Provides a limited description of primary memory	1
Subtotal	/2
Secondary memory	
Provides a suitable description of secondary memory	2
Provides a limited description of secondary memory	1
Subtotal	/2
Total	/4
Answers could include, but are not limited to:	
<p>Primary memory The purpose of primary memory is to store data while the computer is processing it. Once the computer is turned off the computer loses the data stored in primary memory. It is volatile memory and data access is very fast. Answers may include one or more of the following examples: Read Only Memory (ROM), Random Access Memory (RAM) and Programmable Read Only Memory (PROM).</p> <p>Secondary memory The purpose of secondary storage is to store processed data long-term. After the computer is turned off the data can be retrieved from secondary memory and reused. It is non-volatile memory. Answers may include one or more of the following examples: hard disk drive, tape drive and DVD Drive.</p>	

5. Peripheral devices that are normally attached to a computer system are called input devices or output devices. Identify which of the sentences below describes an input device.
- Devices that capture images and transfer these images to a computer.
 - Devices that provide the result of processing any information that a computer creates.

Description	Marks
Correctly identifies the type of peripheral device	1
Answer	
Devices that capture images and transfers these images to a computer.	

6. The following table provides a list of devices. Identify each as either an input device or output device.

Description	Marks
Correctly identifies the type of peripheral device	1–6 (1 mark each)
Answer	
speakers	Output
printer	Output
microphone	Input
camera	Input
monitor	Output
scanner	Input

7. State **two (2)** reasons why a computer system would require the use of an input device.

Description	Marks
Provides suitable reasons for the use of an input device	1–2 (1 mark per reason)
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • enable human-computer interaction • convert human inputted instructions into digital instructions • provide control instructions to a processor • allow specific inputted data to be converted into instructions to processed for a particular purpose 	

8. a) List **two (2)** peripheral devices required to conduct an internet based videoconference.

Description	Marks
Correctly lists peripheral devices required to conduct an internet based videoconference	1–2 (1 mark per device)
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • headphones • speakers • video camera • web camera • multi-function device (smart phone tablet) 	

- b) List **two (2)** peripheral devices required to record a song and then to edit that song.

Description	Marks
Correctly lists peripheral devices required to record and edit a song	1–2 (1 mark per device)
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • headphones • speakers • microphone • midi interface (with musical instrument) 	

- c) Name **one (1)** peripheral device that can be used for multiple tasks.

Description	Marks
Correctly lists a peripheral device that can be used for multiple tasks	1
Answer could include, but is not limited to:	
A combined printer/scanner	

9. a) After starting the computer, the monitor did not work correctly. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

Description	Marks
Correctly provides troubleshooting strategies suitable to resolve the described fault	1–3 (1 mark per strategy)
Answer could include, but is not limited to:	
Check that the: <ul style="list-style-type: none"> power button on the monitor is switched on cable is connected to the power point and turned on brightness control of the monitor 	

- b) Another time, the computer would not start. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

Description	Marks
Correctly provides troubleshooting strategies suitable to resolve the described fault	1–3 (1 mark per strategy)
Answer could include, but is not limited to:	
Check that the: <ul style="list-style-type: none"> cable from the computer to the power point has not fallen out from the wall power point that the computer box is connected to is switched on power button on the computer box is pressed in properly 	

- c) Another time, an email could not be printed. Provide **three (3)** troubleshooting strategies you would recommend to solve this problem.

Description	Marks
Correctly provides troubleshooting strategies suitable to resolve the described fault	1–3 (1 mark per strategy)
Answer could include, but is not limited to:	
Check that the: <ul style="list-style-type: none"> printer power light is on printer is free from any paper jams printer cable is connected to the computer 	

10. Three weeks later, similar problems begin to occur again with each of the devices. Provide **two (2)** strategies you would recommend to solve the continuing problems.

Description	Marks
Correctly provides troubleshooting strategies suitable to resolve the continuing problems	1–2 (1 mark per strategy)
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> upgrade out-dated or faulty computer components buy a new computer 	

Sample assessment task

Applied Information Technology – General Year 11

Task 8 – Unit 2 – Extended answer – Network concepts

Assessment type: Extended answer

Conditions

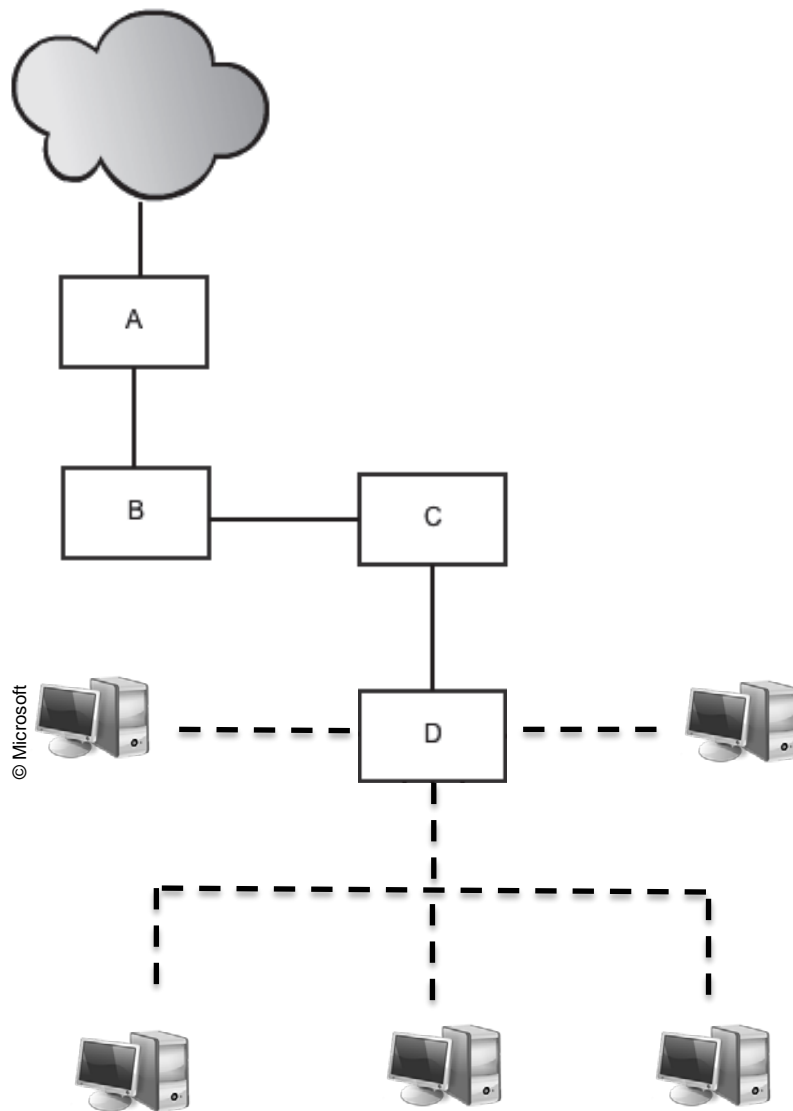
Time allowed for completion of the task: one class period

Task weighting

5% of the school mark for this pair of units

Scenario

A friend has installed a personal wireless network at home. The following diagram shows the layout.



1. Match the items labelled A, B, C and D on the network diagram above with the network devices in the table below. Write A, B, C or D into the appropriate cell. (4 marks)

Device	
modem	
access point	
firewall	
router	

2. State the function of each of the following network devices. (4 marks)

Device	Function
modem	
router	
firewall	
access point	

3. The diagram includes the following symbol.



What does this symbol represent?

(1 mark)

4. a) State the name of the software that would need to be installed on each computer so that each can be protected from a virus. (1 mark)

- b) Describe **one (1)** advantage of using this type of software on each computer. (2 marks)

5. Your friend watches a lot of online movies. Describe the impact of this on the other internet users on the personal wireless network. (3 marks)

6. Your friend’s ISP account allows all the users on the network to download a total of 5 Gb combined of data every month.

- a) What do the letters ISP represent? (3 marks)

I: _____

S: _____

P: _____

- b) List **two (2)** causes why an allocation of 5 Gb of data download each month may not be enough in this situation. (2 marks)

Cause 1: _____

Cause 2: _____

7. Your friend's internet bill has been very high in recent months and he is considering changing his ISP. Describe **two (2)** considerations when considering changing to another ISP.

(4 marks)

8. Your friend would like all users on the personal wireless network to access shared data storage on a shared computer. Provide **one (1)** hardware specification that would need to be considered when upgrading the shared computer. (1 mark)

9. List **three (3)** wireless devices that could be added to this personal network. (3 marks)

Device 1: _____

Device 2: _____

Device 3: _____

Total = 28 marks

Marking key for sample assessment task 8 – Unit 2

1. Match the items labelled A, B, C and D on the network diagram above with the following network devices:

- modem
- router
- firewall
- access point.

Description	Marks
Correctly identifies the labelled parts of the personal wireless network	1–4 (1 mark each)
Answer	
modem	A
router	B
firewall	C
access point	D

2. State the function of each of the following network devices.

Description	Marks
Correctly states the function of each device in the personal wireless network.	1–4 (1 mark each)
Answer could include, but is not limited to:	
Modem: Modulator-demodulator converts digital signals to analog signals, enables the connection of a computer to the internet.	
Router: Directs (or routes) data coming from the internet to the correct computer on the local network by reading the address information on the incoming data and forwarding it to the computer on the network with that address.	
Firewall: Controls the data coming into and out of a computer network and the internet by checking where the data is coming from and only allows data from trusted internet sites to enter the network.	
Access point: Allows wireless devices on the network to connect to a wired network via a wireless signal that each wireless device is omitting.	

3. The diagram includes the following symbol.



What does this symbol represent?

Description	Marks
Correctly identifies the network symbol	1
Answer	
Internet or internet Service provider	

4. a) State the name of the software that would need to be installed on each computer so that each can be protected from a virus.

Description	Marks
Correctly provides the name of the virus software	1
Answer	
Anti-virus software	

- b) Describe **one (1)** advantage of using this type of software on each computer.

Description	Marks
Provides an appropriate description of the advantage of using antivirus software	2
Provides a limited description of the advantage of using antivirus software	1
Answer could include, but is not limited to:	
Anti-virus software protects a computer from viruses. A virus can infect the computer files, damage the computer system, program(s) or personal files on the computer or access personal data.	

5. Your friend watches a lot of online movies. Describe the impact of this on the other internet users on the personal wireless network.

Description	Marks
Provides a detailed description the impact of the high quota usage	3
Provides a description of the impact of the high quota usage	2
Describes a limited description of the high quota usage	1
Answer could include, but is not limited to:	
The impact of high quota usage of an internet account would include a degradation of the internet speeds of other users on the personal wireless network. Watching online movies can use a lot of monthly download quota and, once used up, it could slow down the speed of the internet connection to the internet or cost more money if their account goes over the monthly quota.	

6. Your friend's ISP account allows all the users on the network to download a total of 5 Gb combined of data every month.

- a) What do the letters ISP represent?

Description	Marks
Correctly provides the words that the letters represent	1-3 (1 mark each)
Answer	
I – internet	
S – service	
P – provider	

- b) List **two (2)** causes why an allocation of 5 Gb of data download each month may not be enough in this situation.

Description	Marks
Lists an appropriate cause for why the allocation of 5 GB may not be enough	1–2 (1 mark each)
Answer could include, but is not limited to:	
The high bandwidth demands include listening to streamed music, watching online videos/movies, web conferences with friends and family.	

7. Your friend's internet bill has been very high in recent months and he is considering changing his ISP. Describe **two (2)** considerations when considering changing to another ISP.

Description	Marks
Provides a detailed description of considerations for changing to another ISP	3–4
Provides limited description of a consideration for changing to another ISP	1–2
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • availability of help desk, support and technical services • ability to shape account • access to account benefits – Freezone or No cost access areas • differential time billing practices 	

8. Your friend would like all users on the personal wireless network to access shared data storage on a shared computer. Provide **one (1)** hardware specification that would need to be considered when upgrading the shared computer.

Description	Marks
Correctly provides a suitable hardware specification for a shared computer	1
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • it needs to have a large hard disk – 2 Tb would be recommended • wired network link to increase data transfer speed on the network to the shared computer 	

9. List **three (3)** wireless devices that could be added to this personal network.

Description	Marks
Correctly lists wireless devices that could be added to the personal wireless network	1–3 (1 mark per device)
Answer could include, but is not limited to:	
<ul style="list-style-type: none"> • headphones • speakers • video camera • web camera • network-attached storage (NAS) • multi-function device (smart phone or tablet) 	

Sample assessment task

Applied Information Technology – General Year 11

Task 5 – Unit 11 – Flyer/handout and budget spreadsheet

Assessment type: Project

Conditions

Period allowed for completion of the task: three weeks

Task weighting

25% of the school mark for this pair of units

You are a member of a local soccer team. The manager of the team wants to organise an end of season event for the players and their friends at a local hall. The event will include a sausage sizzle with music provided by a DJ. Players will promote the event and sell tickets.

The manager has heard that you have IT skills and has asked you to design and create the following:

- an A5 sized flyer/handout advertising the event
- a budget spreadsheet which is appropriately formatted and enables the:
 - calculation of the total cost of conducting the event
 - calculation of the cost per ticket if 100 tickets are sold
 - calculation of how much profit you would make if tickets cost \$20 each
 - creation of a chart indicating the proportion of each of the costs for the event with 100 tickets sold

Note: Base the spreadsheet on the following costs:

- Food \$4.00 per person
- Drinks \$1.50 per person
- DJ \$500
- Hall hire \$300
- Printing \$100
- Decorations \$200

Journal

During the three weeks that you are completing this task, you are required to keep a journal in which you record the planning and creation of the two digital products (flyer/handout and budget spreadsheet). (8 marks)

After you have completed your flyer/handout, show your flyer/handout to a class member and obtain feedback. Based upon the feedback, outline in your journal what changes you would make to your flyer/handout and the benefits of the proposed changes.

(2 marks)

Subtotal = 10 marks

Part A: Flyer/handout

Before creating the flyer/handout, you are required to develop a plan for this digital product. This plan must include:

- the purpose (2 marks)
- the target audience (2 marks)
- the proposed content (2 marks)
- a sketch and/or draft of the digital product providing a layout of the spreadsheet that includes an indication of the appropriate use:
 - the elements of design and principles of design
 - typographic tools (typeface, size, alignment, format)
 - composition rules (rule of thirds, grid and alignment)
 - drawing object tools
 - graphics (6 marks)

Use your plan to create the flyer/handout, ensure your digital product:

- provides an appropriate solution to project brief (3 marks)
- demonstrates an appropriate use of:
 - the elements of design and principles of design (3 marks)
 - typographic tools (typeface, size, alignment, format) (8 marks)
 - composition rules (grid and alignment) (4 marks)
 - drawing object tools (2 marks)
 - graphics (3 marks)

Subtotal = 35 marks

Part B: Budget spreadsheet

Before creating the budget spreadsheet, you are required to develop a plan for this digital product.

This plan must include:

- the purpose (2 marks)
- the target audience (2 marks)
- the proposed content (2 marks)
- a sketch and/or draft of the digital product providing a layout of the spreadsheet that includes an indication of the appropriate use:
 - typographic tools (typeface, size, alignment, spacing, cell formatting)
 - composition rules (grid and alignment)
 - graphics
 - formulae and/or functions
 - charting tools (5 marks)

Subtotal = 11 marks

Use the plan to create the budget spreadsheet, ensure your digital product:

- provides an appropriate solution to project brief (3 marks)
- demonstrates an appropriate use of:
 - typographic tools (typeface, size, alignment, spacing, cell formatting) (10 marks)
 - composition rules (grid and alignment) (2 marks)
 - graphics (2 marks)
 - formulae and/or functions (4 marks)
 - charting tools (3 marks)

Subtotal: 24 marks

Total = 80 marks

Marking key for sample assessment task 5 – Unit 1

Description	Marks
Journal	
Provides information on the planning, design, feedback received, and changes made to the development of the digital products that are: <ul style="list-style-type: none"> regular with detailed descriptions of all elements regular with reasonable detail on some elements incomplete irregular and/or with limited detail 	7–8 5–6 3–4 1–2
Subtotal	/8
Outlines proposed changes to the flyer/handout from feedback and the benefits of these changes to the initial design	1–2
Subtotal	/2
Journal total	/10

Part A: The flyer/handout	
<i>Plan of the flyer/handout</i>	
<i>Purpose</i>	
Provides an appropriate description of the purpose of the digital product	2
Provides a limited description of the purpose of the digital product	1
Subtotal	/2
<i>Target audience</i>	
Provides an appropriate explanation of target audience	2
Provides a limited explanation of target audience	1
Subtotal	/2
<i>Content</i>	
Provides an appropriate statement of content to be included in the digital product	2
Provides a limited statement of content to be included in the digital product	1
Subtotal	/2
<i>Sketch and/or draft plan</i>	
Indicates the appropriate use of: <ul style="list-style-type: none"> the elements of design and principles of design typographic tools composition rules drawing object tools graphics 	2 1 1 1 1
Subtotal	/6
Planning total	/12
<i>Creation of the flyer/handout</i>	
Is complete and includes all requirements identified in the project brief	3
Is complete and includes most of the requirements identified in the project brief	2
Is incomplete and includes some of the requirements identified in the project brief	1
Subtotal	/3
<i>Elements of design and principles of design</i>	
Demonstrates effective use of design principles and the use of the necessary elements of design to create them	1–3
Subtotal	/3

Demonstrates appropriate use of the following typographic tools: <ul style="list-style-type: none">• typeface• size• alignment• spacing	1-2 1-2 1-2 1-2
Subtotal	/8
Demonstrates appropriate use of the following composition rules: <ul style="list-style-type: none">• rule of thirds• grid and alignment	1-2 1-2
Subtotal	/4
Demonstrates appropriate use of drawing object tools	1-2
Subtotal	/2
Demonstrates an appropriate use of graphics	1-3
Subtotal	/3
Creating total	/23
Total for Part A	/35

Part B: The budget spreadsheet	
<i>Plan of the budget spreadsheet</i>	
<i>Purpose</i>	
Provides an appropriate description of the purpose of the digital product	2
Provides a limited description of the purpose of the digital product	1
Subtotal	/2
<i>Target audience</i>	
Provides an appropriate explanation of target audience	2
Provides a limited explanation of target audience	1
Subtotal	/2
<i>Content</i>	
Provides an appropriate statement of content to be included in the digital product	2
Provides a limited statement of content to be included in the digital product	1
Subtotal	/2
<i>Sketch and/or draft plan</i>	
Indicates the appropriate use of:	
• typographic tools	1
• composition rules	1
• graphics	1
• formulae and/or functions	1
• charting tools	1
Subtotal	/5
Planning total	/11
<i>Creation of the budget spreadsheet</i>	
Is complete and includes all requirements identified in the project brief	3
Is complete and includes most of requirements identified in the project brief	2
Is incomplete and includes some of the requirements identified in the project brief	1
Subtotal	/3
Demonstrates appropriate use of the following typographic tools:	
• cell formatting (text and number)	1–2
• typeface	1–2
• size	1–2
• alignment	1–2
• spacing	1–2
Subtotal	/10
Demonstrates appropriate use of the following composition rule:	
• grid and alignment	1–2
Subtotal	/2
Demonstrates appropriate use of graphics	1–2
Subtotal	/2
Demonstrates appropriate use of formulae and/or functions to calculate:	
• total cost of conducting the event	1
• cost per ticket if 100 tickets are sold	1–2
• profit you would make if tickets cost \$20 each	1
Provides a chart that accurately represents the proportion of each of the costs for the event with 100 tickets sold	1–3
Subtotal	/7
Creating total	/24
Total for Part B	/35
Total for Journal	/10
Total for Part A	/35
Total for Part B	/35
Task Total	/80