



Cambridge International AS & A Level

INFORMATION TECHNOLOGY

9626/02

Paper 2 Practical

March 2020

MARK SCHEME

Maximum Mark: 110

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the March 2020 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **13** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Q1. Prepared data file (combined data)

AME and Item files combined	1 mark
Saved as a single spreadsheet with correct filename M20PROC_ZZ999_9999	1 mark
Top row as field names	1 mark
No extra blank rows	1 mark
Columns rearranged so data in correct columns	1 mark
75 Rows including header (no duplicated fieldnames)	1 mark

Q2. Data Dictionary

Motherboard table

Field	Data type	Field size	Other metadata – input mask, validation, default value etc.		
Manufacturer	Alphanumeric/Text				
Model	Alphanumeric/Text		Primary key		
Chipset	Alphanumeric/Text				
Socket	Alphanumeric/Text	4 chars			
Memory	Alphanumeric/Text				
Slots	Numeric		Integer	Validation >=0	
Price	Currency		2dp	Validation >=0	

Data dictionary Motherboard table	2 tables created for board and processor	1 mark
	3rd link table added	1 mark
	Saved as M20_ZZ999_9999.rtf	1 mark
	Table name – appropriate e.g. Board, PCB	1 mark
	Appropriate fieldnames	1 mark
	Model as primary key	1 mark
	Socket data type text	1 mark
	Slots data type numeric	1 mark
	Slots data type restricted to integer	1 mark
	At least 1 appropriate validation routine	1 mark
	At least 1 appropriate field length	1 mark

Data Dictionary continued:

Processor table

Field	Data type	Field size	Other metadata – input mask, validation, default value etc.		
Manufacturer	Alphanumeric/Text				
Model	Alphanumeric/Text		Primary key		
Speed_in_GHz	Numeric		Decimal 1dp	Validation >=0	
Socket	Alphanumeric/Text	4 chars			
Cores	Numeric		Integer	Validation >=0	
Threads	Numeric		Integer	Validation >=0	
Price	Currency		2dp	Validation >=0	

Processor table	Table name – appropriate e.g. Processor, chip	1 mark
	Appropriate fieldnames	1 mark
	Model as primary key	1 mark
	No spaces in 'Speed' field name	1 mark
	Speed data type numeric	1 mark
	Speed data type decimal to 1dp	1 mark
	Socket data type Text	1 mark
	Cores and Threads – Numeric Integer	1 mark
	At least 1 appropriate validation routine	1 mark
	At least 1 appropriate field length	1 mark

Link table

Field	Data type	Field size	Other metadata – input mask, validation, default value etc.		
Socket	Alphanumeric/Text	4 chars	Primary key		

Link table	Table name – appropriate e.g. Socket, Link	1 mark
	Appropriate fieldname	1 mark
	Socket as primary key	1 mark
	Socket data type Text	1 mark
	Length restricted to 4 characters	1 mark

Create database

Motherboard	
Field Name	Data Type
Manufacturer	Short Text
Model	Short Text
Chipset	Short Text
Socket	Short Text
Memory	Short Text
Slots	Number
Price	Currency

Database structure	Motherboard table	1 mark
	Fields match dictionary	1 mark
	Data types match	1 mark
	Primary key matches	1 mark
	892 records correctly imported *	1 mark

Processor	
Field Name	Data Type
Manufacturer	Short Text
Model	Short Text
Speed_in_GHz	Number
Socket	Short Text
Cores	Number
Threads	Number
Price	Currency

Database structure	Processor table	1 mark
	Fields match dictionary	1 mark
	Data types match	1 mark
	Primary key matches	1 mark
	74 records correctly imported *	1 mark

Link	
Field Name	Data Type
Socket	Short Text

Database structure	Link/socket table	1 mark
	Primary key matches	1 mark
	Duplicate data removed...	1 mark
	...to leave 22 records	1 mark

Edit Relationships ? X

Table/Query: Link Related Table/Query: Motherboard

Socket Socket

☐ Enforce Referential Integrity

☐ Cascade Update Related Fields

☐ Cascade Delete Related Records

Relationship Type: One-To-Many

OK Cancel Join Type.. Create New..

Edit Relationships ? X

Table/Query: Link Related Table/Query: Processor

Socket Socket

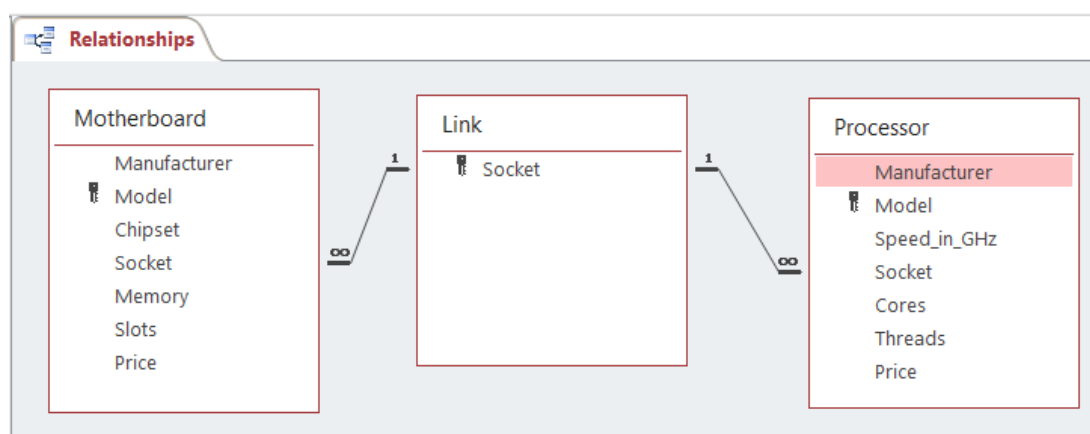
☐ Enforce Referential Integrity

☐ Cascade Update Related Fields

☐ Cascade Delete Related Records

Relationship Type: One-To-Many

OK Cancel Join Type.. Create New..



Database structure

Link.socket to Motherboard.socket
... 1 to many
Link.socket to Processor.socket
... 1 to many

2 marks
1 mark
2 marks
1 mark

Step 4: Create query

Question 4

Motherboard

*

Manufacturer

Model

Chipset

Socket

Memory

Link

*

Socket

Processor

*

Manufacturer

Model

Speed_in_GHz

Socket

Cores

Field:	Memory	Slots	Price	Manufacturer	Model	Speed_in_GHz	Socket	Cores	Threads	Price	Combined_Price: [Motherboard.Price]+[Processor.Price]
Table:	Motherboard	Motherboard	Motherboard	Processor	Processor	Processor	Processor	Processor	Processor	Processor	
Sort:											
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	"DDR4"		>0		Like "i7"	>=3.7				>0	

Underlying query	Processor model (wildcard) i7*	1 mark
	Speed >=3.7	1 mark
	Processor price >0	1 mark
	Motherboard memory = DDR4	1 mark
	Motherboard price >0	1 mark
	172 records found	1 mark
	Field calculated at run-time...	1 mark
	... with appropriate field name	1 mark
	... two price fields added	1 mark
	... gives correct totals	1 mark

Step 4: Create export Report

i7 processors with $\geq 3.7\text{GHz}$ and motherboards with DDR4 RAM
by A Candidate, ZZ999, 9999

Processor Model	Manufacturer	Speed in GHz	Socket	Cores	Threads	Processor Price						
i7-5930K	Intem	3.7	2011	6	12	£376.99						
	Motherboard Manufacturer	Model		Chipset	Memory	Slots	Motherboard Price	Combined Price				
	Asut	ROG Strix X99 Gaming		Intem	DDR4	8	£269.99	£646.98				
	Asut	X99-DELUXE		Intem	DDR4	8	£299.99	£676.98				
	Asut	X99-A		Intem	DDR4	8	£252.99	£629.98				
	Asut	X99-M WS		Intem	DDR4	4	£81.99	£458.98				
	Asut	Rampage V Extreme		Intem	DDR4	8	£180.99	£557.98				
	Asut	X99-A II		Intem	DDR4	8	£252.99	£629.98				
	Asut	ROG RAMPAGE V EDITION 10		Intem	DDR4	8	£218.99	£595.98				
	Asut	Sabertooth X99		Intem	DDR4	8	£178.99	£555.98				
i7-6700	Intem	4	2011	4	8	£342.50						
	Motherboard Manufacturer	Model		Chipset	Memory	Slots	Motherboard Price	Combined Price				
	Asut	Rampage V Extreme		Intem	DDR4	8	£180.99	£523.49				
	Asut	X99-A II		Intem	DDR4	8	£252.99	£595.49				
	Asut	X99-M WS		Intem	DDR4	4	£81.99	£424.49				
	Asut	X99-DELUXE		Intem	DDR4	8	£299.99	£642.49				
	Asut	ROG Strix X99 Gaming		Intem	DDR4	8	£269.99	£612.49				
	Asut	Sabertooth X99		Intem	DDR4	8	£178.99	£521.49				
	Asut	X99-A		Intem	DDR4	8	£252.99	£595.49				
	Asut	ROG RAMPAGE V EDITION 10		Intem	DDR4	8	£218.99	£561.49				
i7-6700K	Intem	4.2	1151	4	8	£311.99						
	Motherboard Manufacturer	Model		Chipset	Memory	Slots	Motherboard Price	Combined Price				
	Asut	TUF Z270 MARK2		Intem	DDR4	4	£131.97	£443.96				
	Asut	Z170-K		Intem	DDR4	4	£189.99	£501.98				
	Asut	Z170-PREMIUM		Intem	DDR4	4	£279.80	£591.79				
	Asut	Prime Z270-P		Intem	DDR4	4	£108.63	£420.62				
	Asut	Z170-E		Intem	DDR4	4	£118.98	£430.97				
	Asut	ROG Strix Z270F Gaming		Intem	DDR4	4	£149.99	£461.98				
	Asut	Prime Z270-AR		Intem	DDR4	4	£114.65	£426.64				
	Asut	Sabertooth Z170 S		Intem	DDR4	4	£77.99	£389.98				
	Asut	ROG STRIX Z270H GAMING		Intem	DDR4	4	£119.99	£431.98				
	Asut	H170 Pro Gaming		Intem	DDR4	4	£118.98	£430.97				
	Asut	Z170-A		Intem	DDR4	4	£96.99	£408.98				
	Asut	H110M-K		Intem	DDR4	2	£57.44	£369.43				
	Asut	TUF Z270 Mark 2		Intem	DDR4	4	£134.99	£446.98				
	Asut	Strix Z270E Gaming		Intem	DDR4	4	£71.99	£383.98				

Processor Model	Manufacturer	Speed in GHz	Socket	Cores	Threads	Processor Price		
	Asut	Maximus VIII Hero Alpha			Intem	DDR4	4	£131.99 £443.98
	Asut	PRIME Z270-A			Intem	DDR4	4	£84.35 £396.34
	Asut	H110I-PLUS			Intem	DDR4	2	£62.99 £374.98
	Asut	Z170I Pro Gaming			Intem	DDR4	2	£84.35 £396.34
	Asut	B150M-A			Intem	DDR4	4	£169.38 £481.37
	Asut	Z170 PRO GAMING			Intem	DDR4	4	£296.73 £608.72
	Asut	Maximus VIII Gene			Intem	DDR4	4	£179.99 £491.98
	Asut	Maximus VIII Ranger			Intem	DDR4	4	£174.05 £486.04
	Asut	H110M-A-M.2			Intem	DDR4	2	£46.50 £358.49
	Asut	H110M-C			Intem	DDR4	2	£39.99 £351.98
	Asut	ROG STRIX B250H GAMING			Intem	DDR4	4	£103.22 £415.21
	Asut	Prime H270M-PLUS			Intem	DDR4	4	£187.95 £499.94
	Asut	SABERTOOTH Z170 MARK 1			Intem	DDR4	4	£154.18 £466.17
	Asut	PRIME B250-PLUS			Intem	DDR4	4	£74.99 £386.98
	Asut	B150 Pro Gaming			Intem	DDR4	4	£88.98 £400.97
	Asut	B150 Pro Gaming Aura			Intem	DDR4	4	£128.99 £440.98
	Asut	B150-PRO			Intem	DDR4	4	£100.89 £412.88
	Asut	z170 Sabertooth Mark 1			Intem	DDR4	4	£134.99 £446.98
	Asut	Maximus IX Code			Intem	DDR4	4	£251.27 £563.26
	Motherboard Manufacturer	Model	Chipset	Memory	Slots	Motherboard Price	Combined Price	
	MSJ	170A PC Mate		Intem	DDR4	4	£101.99	£413.98
	MSJ	170-A PRO		Intem	DDR4	4	£117.95	£429.94
	MSJ	170A GAMING M5		Intem	DDR4	4	£133.95	£445.94
	MSJ	270-A PRO		Intem	DDR4	4	£89.98	£401.97
	MSJ	170A KRAIT GAMING		Intem	DDR4	4	£119.99	£431.98
	MSJ	270 Gaming M5		Intem	DDR4	4	£97.98	£409.97
	MSJ	170A Gaming PRO		Intem	DDR4	4	£71.72	£383.71
	MSJ	270 SLI PLUS		Intem	DDR4	4	£113.99	£425.98
	MSJ	170A GAMING M3		Intem	DDR4	4	£132.96	£444.95
	MSJ	270 Gaming Pro		Intem	DDR4	4	£91.98	£403.97
	MSJ	110M ECO		Intem	DDR4	2	£38.98	£350.97
	MSJ	170A GAMING PRO		Intem	DDR4	4	£173.25	£485.24
	MSJ	250M PRO-VD		Intem	DDR4	2	£35.72	£347.71
	MSJ	110m		Intem	DDR4	4	£46.84	£358.83
	MSJ	150 NIGHT ELF		Intem	DDR4	4	£151.98	£463.97
	MSJ	H270 Tomahawk Artic		Intem	DDR4	4	£134.99	£446.98
	MSJ	150M Bazooka		Intem	DDR4	4	£53.99	£365.98
	MSJ	250M Bazooka		Intem	DDR4	4	£80.99	£392.98
	MSJ	250M Mortar Arctic		Intem	DDR4	4	£62.99	£374.98
	MSJ	150 PC MATE		Intem	DDR4	4	£58.98	£370.97
i7-7700K	Intem	4.2 1151	4	8		£317.80		

Processor Model	Manufacturer	Speed in GHz	Socket	Cores	Threads	Processor Price		
	Motherboard Manufacturer	Model		Chipset	Memory	Slots	Motherboard Price	Combined Price
	Asut	H170 Pro Gaming		Intem	DDR4	4	£118.98	£436.78
	Asut	Z170-E		Intem	DDR4	4	£118.98	£436.78
	Asut	Maximus VIII Ranger		Intem	DDR4	4	£174.05	£491.85
	Asut	z170 Sabertooth Mark 1		Intem	DDR4	4	£134.99	£452.79
	Asut	B150-PRO		Intem	DDR4	4	£100.89	£418.69
	Asut	B150 Pro Gaming Aura		Intem	DDR4	4	£128.99	£446.79
	Asut	B150 Pro Gaming		Intem	DDR4	4	£88.98	£406.78
	Asut	PRIME B250-PLUS		Intem	DDR4	4	£74.99	£392.79
	Asut	ROG STRIX Z270H GAMING		Intem	DDR4	4	£119.99	£437.79
	Asut	Z170 PRO GAMING		Intem	DDR4	4	£296.73	£614.53
	Asut	H110M-A-M.2		Intem	DDR4	2	£46.50	£364.30
	Asut	TUF Z270 MARK2		Intem	DDR4	4	£131.97	£449.77
	Asut	Sabertooth Z170 S		Intem	DDR4	4	£77.99	£395.79
	Asut	Prime Z270-AR		Intem	DDR4	4	£114.65	£432.45
	Asut	TUF Z270 Mark 2		Intem	DDR4	4	£134.99	£452.79
	Asut	SABERTOOTH Z170 MARK 1		Intem	DDR4	4	£154.18	£471.98
	Asut	H110I-PLUS		Intem	DDR4	2	£62.99	£380.79
	Asut	ROG Strix Z270F Gaming		Intem	DDR4	4	£149.99	£467.79
	Asut	ROG STRIX B250H GAMING		Intem	DDR4	4	£103.22	£421.02
	Asut	H110M-C		Intem	DDR4	2	£39.99	£357.79
	Asut	H110M-K		Intem	DDR4	2	£57.44	£375.24
	Asut	Prime H270M-PLUS		Intem	DDR4	4	£187.95	£505.75
	Asut	Maximus VIII Gene		Intem	DDR4	4	£179.99	£497.79
	Asut	Z170I Pro Gaming		Intem	DDR4	2	£84.35	£402.15
	Asut	Maximus IX Code		Intem	DDR4	4	£251.27	£569.07
	Asut	PRIME Z270-A		Intem	DDR4	4	£84.35	£402.15
	Asut	Maximus VIII Hero Alpha		Intem	DDR4	4	£131.99	£449.79
	Asut	Strix Z270E Gaming		Intem	DDR4	4	£71.99	£389.79
	Asut	Z170-A		Intem	DDR4	4	£96.99	£414.79
	Asut	Z170-K		Intem	DDR4	4	£189.99	£507.79
	Asut	Z170-PREMIUM		Intem	DDR4	4	£279.80	£597.60
	Asut	Prime Z270-P		Intem	DDR4	4	£108.63	£426.43
	Asut	B150M-A		Intem	DDR4	4	£169.38	£487.18
	Motherboard Manufacturer	Model		Chipset	Memory	Slots	Motherboard Price	Combined Price
	MSJ	150 NIGHT ELF		Intem	DDR4	4	£151.98	£469.78
	MSJ	270 Gaming Pro		Intem	DDR4	4	£91.98	£409.78
	MSJ	250M PRO-VD		Intem	DDR4	2	£35.72	£353.52
	MSJ	270 SLI PLUS		Intem	DDR4	4	£113.99	£431.79
	MSJ	270 Gaming M5		Intem	DDR4	4	£97.98	£415.78
	MSJ	170A KRAIT GAMING		Intem	DDR4	4	£119.99	£437.79

Processor Model	Manufacturer	Speed in GHz	Socket	Cores	Threads	Processor Price		
	MSJ	170A GAMING PRO			Intem	DDR4	4	£173.25 £491.05
	MSJ	170A GAMING M5			Intem	DDR4	4	£133.95 £451.75
	MSJ	170A GAMING M3			Intem	DDR4	4	£132.96 £450.76
	MSJ	170-A PRO			Intem	DDR4	4	£117.95 £435.75
	MSJ	110M ECO			Intem	DDR4	2	£38.98 £356.78
	MSJ	270-A PRO			Intem	DDR4	4	£89.98 £407.78
	MSJ	170A PC Mate			Intem	DDR4	4	£101.99 £419.79
	MSJ	H270 Tomahawk Artic			Intem	DDR4	4	£134.99 £452.79
	MSJ	150 PC MATE			Intem	DDR4	4	£58.98 £376.78
	MSJ	150M Bazooka			Intem	DDR4	4	£53.99 £371.79
	MSJ	250M Bazooka			Intem	DDR4	4	£80.99 £398.79
	MSJ	250M Mortar Arctic			Intem	DDR4	4	£62.99 £380.79
	MSJ	110m			Intem	DDR4	4	£46.84 £364.64
	MSJ	170A Gaming PRO			Intem	DDR4	4	£71.72 £389.52
i7-8700K	Intem	3.7	1151	6	12	£389.99		
	Motherboard Manufacturer	Model	Chipset	Memory	Slots	Motherboard Price	Combined Price	
	Asut	Sabertooth Z170 S		Intem	DDR4	4	£77.99	£467.98
	Asut	PRIME B250-PLUS		Intem	DDR4	4	£74.99	£464.98
	Asut	z170 Sabertooth Mark 1		Intem	DDR4	4	£134.99	£524.98
	Asut	B150-PRO		Intem	DDR4	4	£100.89	£490.88
	Asut	B150 Pro Gaming Aura		Intem	DDR4	4	£128.99	£518.98
	Asut	B150 Pro Gaming		Intem	DDR4	4	£88.98	£478.97
	Asut	Maximus VIII Ranger		Intem	DDR4	4	£174.05	£564.04
	Asut	SABERTOOTH Z170 MARK 1		Intem	DDR4	4	£154.18	£544.17
	Asut	Z170 PRO GAMING		Intem	DDR4	4	£296.73	£686.72
	Asut	H170 Pro Gaming		Intem	DDR4	4	£118.98	£508.97
	Asut	TUF Z270 MARK2		Intem	DDR4	4	£131.97	£521.96
	Asut	TUF Z270 Mark 2		Intem	DDR4	4	£134.99	£524.98
	Asut	Prime Z270-AR		Intem	DDR4	4	£114.65	£504.64
	Asut	Z170-E		Intem	DDR4	4	£118.98	£508.97
	Asut	Z170I Pro Gaming		Intem	DDR4	2	£84.35	£474.34
	Asut	ROG STRIX Z270H GAMING		Intem	DDR4	4	£119.99	£509.98
	Asut	ROG Strix Z270F Gaming		Intem	DDR4	4	£149.99	£539.98
	Asut	H110M-C		Intem	DDR4	2	£39.99	£429.98
	Asut	H110M-A-M.2		Intem	DDR4	2	£46.50	£436.49
	Asut	H110M-K		Intem	DDR4	2	£57.44	£447.43
	Asut	Maximus VIII Gene		Intem	DDR4	4	£179.99	£569.98
	Asut	Prime H270M-PLUS		Intem	DDR4	4	£187.95	£577.94
	Asut	B150M-A		Intem	DDR4	4	£169.38	£559.37
	Asut	PRIME Z270-A		Intem	DDR4	4	£84.35	£474.34
	Asut	H110I-PLUS		Intem	DDR4	2	£62.99	£452.98
	Asut	ROG STRIX B250H GAMING		Intem	DDR4	4	£103.22	£493.21

Processor Model	Manufacturer	Speed in GHz	Socket	Cores	Threads	Processor Price		
	Asut	Maximus VIII Hero Alpha			Intem	DDR4	4	£131.99
	Asut	Strix Z270E Gaming			Intem	DDR4	4	£71.99
	Asut	Z170-A			Intem	DDR4	4	£96.99
	Asut	Z170-K			Intem	DDR4	4	£189.99
	Asut	Z170-PREMIUM			Intem	DDR4	4	£279.80
	Asut	Prime Z270-P			Intem	DDR4	4	£108.63
	Asut	Maximus IX Code			Intem	DDR4	4	£251.27
	Motherboard Manufacturer	Model	Chipset	Memory	Slots	Motherboard Price	Combined Price	
	MSJ	H270 Tomahawk Artic		Intem	DDR4	4	£134.99	£524.98
	MSJ	170A PC Mate		Intem	DDR4	4	£101.99	£491.98
	MSJ	270-A PRO		Intem	DDR4	4	£89.98	£479.97
	MSJ	270 SLI PLUS		Intem	DDR4	4	£113.99	£503.98
	MSJ	270 Gaming Pro		Intem	DDR4	4	£91.98	£481.97
	MSJ	270 Gaming M5		Intem	DDR4	4	£97.98	£487.97
	MSJ	170A KRAIT GAMING		Intem	DDR4	4	£119.99	£509.98
	MSJ	170A GAMING PRO		Intem	DDR4	4	£173.25	£563.24
	MSJ	170A GAMING M5		Intem	DDR4	4	£133.95	£523.94
	MSJ	110M ECO		Intem	DDR4	2	£38.98	£428.97
	MSJ	170-A PRO		Intem	DDR4	4	£117.95	£507.94
	MSJ	250M PRO-VD		Intem	DDR4	2	£35.72	£425.71
	MSJ	170A Gaming PRO		Intem	DDR4	4	£71.72	£461.71
	MSJ	110m		Intem	DDR4	4	£46.84	£436.83
	MSJ	250M Mortar Arctic		Intem	DDR4	4	£62.99	£452.98
	MSJ	250M Bazooka		Intem	DDR4	4	£80.99	£470.98
	MSJ	150M Bazooka		Intem	DDR4	4	£53.99	£443.98
	MSJ	150 PC MATE		Intem	DDR4	4	£58.98	£448.97
	MSJ	150 NIGHT ELF		Intem	DDR4	4	£151.98	£541.97
	MSJ	170A GAMING M3		Intem	DDR4	4	£132.96	£522.95

Step 4 Report

Grouped by processor model...

1 mark

...then by motherboard manufacturer

1 mark

All processor details with headings in group header

1 mark

Motherboard details with headings in detail row

1 mark

No other fields present in detail row

1 mark

Calculated field

Combined price in detail row

1 mark

... emboldened

1 mark

... with appropriate heading

1 mark

Report sits on a single portrait page wide and fully visible

1 mark

Appropriate font size for all text

1 mark

Appropriate title

1 mark

Title includes candidate details

1 mark

Exported as FASTi7_ZZ999_9999.pdf

1 mark

Video file TGC2_

Image ratio of software set to 16:9	1 mark
Resolution 1024 x 576	1 mark
First 4 seconds removed	1 mark
All sound removed from the clip	1 mark
Clip saved in mp4 format as TGC2_ZZ999_9999.mp4	1 mark

Image file TGC3_

Image TGC3	
Still image extracted from first frame...	1 mark
...saved as TGC3 in suitable file format	1 mark

Video file TGC4_

0 seconds:	Title background set to TGC3	1 mark
	Name of company Tawara Gaming Computers placed	1 mark
	Top left of screen with no transition	1 mark
	Appropriate colour selection and clearly visible	1 mark
3 seconds:		1 mark
	Title and bg retained with no adjustment/movement	1 mark
	An introduction to your gaming desktop below title	1 mark
	Set as an appropriate subtitle	1 mark
6 seconds:		1 mark
	Title, subtitle and bg with no adjustment/movement	1 mark
	Add the text How to access the components	1 mark
	Appropriate style for text	1 mark
9 seconds:		1 mark
	Clip placed as specified (after all text)	1 mark
	Smooth transition into video file ...	1 mark
	... between 9 and 11 secs	1 mark
	Audio clip 20-Voice.mp3 starts	1 mark
29 seconds:		1 mark
	Black background for credits	1 mark
	Credits scroll up the screen	1 mark
	Credits include:	
	Edited by: Candidate details in appropriate format	1 mark
	Filmed by: GBRvideo	1 mark
	Audio by: KMBAudio	1 mark
	Appropriate blank line/s as spacing between credits	1 mark
	Appropriate length for credits	1 mark
	All text is an easily read font with good contrast	1 mark
	All text in a consistent sans-serif font with credits of appropriate size	1 mark
	Movie exported / saved as TGC4_ZZ999_9999.mp4 format	1 mark