



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 Intem 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 | 2 tables created for board and processor | 1 mark |
| | 3rd link table added | 1 mark |
| Motherboard table | 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 filename | 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

Buttons: OK, Cancel, Join Type.., Create New..

Edit Relationships [?] [X]

Table/Query: Link Related Table/Query: Processor

Socket Socket

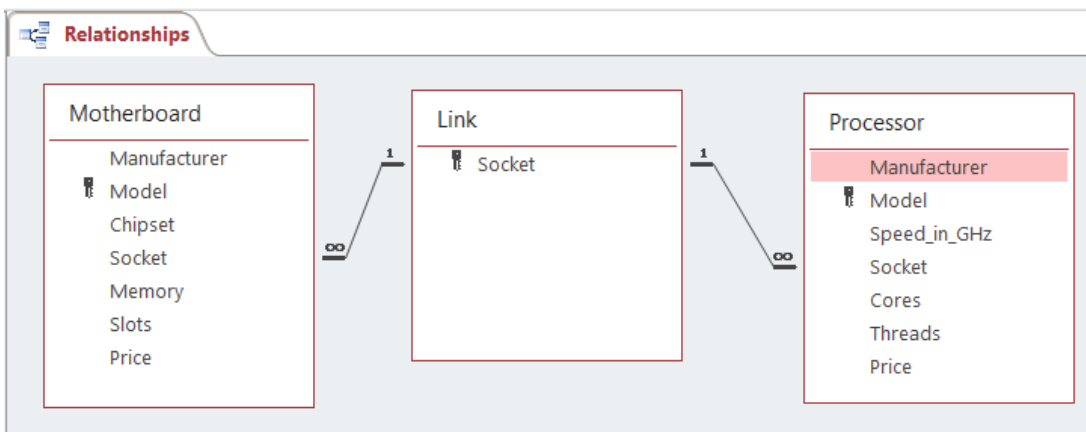
Enforce Referential Integrity

Cascade Update Related Fields

Cascade Delete Related Records

Relationship Type: One-To-Many

Buttons: OK, Cancel, Join Type.., Create New..



| | | |
|--------------------|-----------------------------------|---------|
| Database structure | Link.socket to Motherboard.socket | 2 marks |
| | ... 1 to many | 1 mark |
| | Link.socket to Processor.socket | 2 marks |
| | ... 1 to many | 1 mark |

Step 4: Create query

Question 4

| 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 >=3.7GHz 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 | £521.98 |
| | Asut | Strix Z270E Gaming | | | Intem | DDR4 | 4 | £71.99 | £461.98 |
| | Asut | Z170-A | | | Intem | DDR4 | 4 | £96.99 | £486.98 |
| | Asut | Z170-K | | | Intem | DDR4 | 4 | £189.99 | £579.98 |
| | Asut | Z170-PREMIUM | | | Intem | DDR4 | 4 | £279.80 | £669.79 |
| | Asut | Prime Z270-P | | | Intem | DDR4 | 4 | £108.63 | £498.62 |
| | Asut | Maximus IX Code | | | Intem | DDR4 | 4 | £251.27 | £641.26 |
| | 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 |
| Calculated field | 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 |
| | 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 |