



Cambridge International AS & A Level

INFORMATION TECHNOLOGY

9626/02

Paper 2 Practical

May/June 2020

MARK SCHEME

Maximum Mark: 110

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

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

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

This document consists of **8** 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.

Audio file Voice

Clip in monophonic	1 mark
Bells removed from clip 206-VoiceA.mp3	1 mark
Quiet section added to end of 206-VoiceA	1 mark
So 6 seconds long	1 mark
Sound amplified to maximum...	1 mark
...without clipping	1 mark
206-VoiceB.mp3 added to end of quiet section	1 mark
Saved as single monophonic track	1 mark
Clip saved in mp3 format as Voice_ZZ999_9999.mp3	1 mark

Video file TGC2

Image ratio of software set to 16:9	1 mark
Resolution 854 × 480	1 mark
All sound removed from the clip	1 mark
Clip saved in mp4 format as 206-TGC2 ZZ999 9999.mp4	1 mark

Image file TGC3

Still image extracted from first frame...	1 mark
...saved as 206-TGC3 in suitable file format	1 mark

Video file TGC4

0 seconds:	Title background set to 206-TGC3	1 mark
	Name of company placed	1 mark
	Text in sans-serif font of appropriate size	1 mark
	Top right of screen	1 mark
	Appropriate colour selection to be clearly visible	1 mark
2 seconds:		1 mark
	Title and bg retained with no adjustment/movement	1 mark
	Add the text Water cooling systems as a new line	1 mark
	Set as an appropriate subtitle	1 mark
4 seconds:		1 mark
	Title, subtitle and bg with no adjustment/movement	1 mark
	Add the text for overclocked processors	1 mark
	Appropriate style for text (to match, relative size etc)	1 mark
6 seconds:		1 mark
	Title, subtitle and bg with no adjustment/movement	1 mark
	Audio clip Voice.mp3 starts	1 mark
10 seconds:		1 mark
	Clip placed as specified (after 10 seconds)	1 mark
	Smooth transition into video file	1 mark
19.8 seconds:		1 mark
	Still image from final frame as 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
	Produced for: Tawara Gaming Computers	1 mark
	Appropriate blank line/s as spacing between credits	1 mark
	All text is a large easily read font with good contrast	1 mark
	Appropriate length for credits	1 mark
	Movie exported / saved in mp4 format	1 mark

Motherboard spreadsheet**Motherboard spreadsheet**

All DDR2 rows removed (734 rows – 733 + header)	1 mark
Saved in spreadsheet format as Motherboard_ZZ999_9999	1 mark

Q6. Data Dictionary**Motherboard table**

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

Data dictionary	3 tables created for board, processor and location	1 mark
	4th link table added	1 mark
Motherboard table	Table name – appropriate e.g. Board, PCB	1 mark
	Appropriate fieldnames	1 mark
	ID as primary key	1 mark
	ID data type text	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
	Any extra metadata	1 mark
	No spaces in fieldnames	1 mark
	Consistent case in fieldnames	1 mark

Data Dictionary continued:

Processor table

Field	Data type	Field size	Other metadata – input mask, validation, default value etc.		
ID	Autonumber		Primary key		
Manufacturer	Alphanumeric/Text				
Model	Alphanumeric/Text				
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
	ID as primary key & autonumber (or composite key is used)	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
	Any extra metadata	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

Location/stock

Field	Data type	Field size	Other metadata – input mask, validation, default value etc.		
Location	Alphanumeric/Text	6 chars	Primary key		
Board_ID	Alphanumeric/Text	6 chars			

Location	Table name – appropriate e.g. Location, Stock etc	1 mark
	Appropriate fieldname for Location	1 mark
	Location as primary key	1 mark
	Appropriate fieldname for Motherboard	1 mark
	Fieldname has no spaces	1 mark
	Both data types Text	1 mark
	Both lengths restricted to 4,5, or 6 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		
Memory_slots	Number		
Price	Number		
ID	Short Text		

Database structure Motherboard table 1 mark
Fields match dictionary 1 mark
Data types match 1 mark
Primary keys matches 1 mark
733 records correctly imported 1 mark

Processor			
Field Name	Data Type		
ID	AutoNumber		
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
76 records correctly imported 1 mark

Socket			
Field Name	Data Type		
Socket	Short Text		

Database structure Link/socket table 1 mark
Single socket field as primary key 1 mark
Duplicate data removed... 1 mark
...to leave 22 records 1 mark

Location			
Field Name	Data Type		
Location	Short Text		
Board_ID	Short Text		

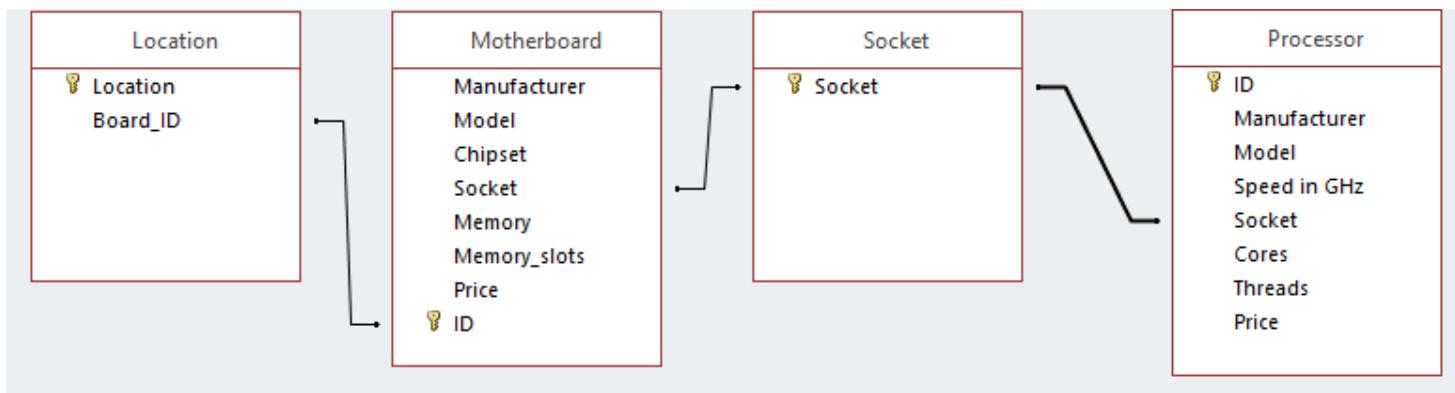
Database structure Location/stock table 1 mark
Location/stock field as primary key 1 mark
ID field in motherboard table as text 1 mark
Correct data duplicated... 1 mark
...to leave 289 records 1 mark

Three 'Edit Relationships' dialog boxes are shown, each defining a relationship between two tables:

Relationship 1: Motherboard (Table/Query) is related to Location (Related Table/Query). The relationship type is One-To-Many. The primary key is ID (Motherboard) and the foreign key is Board_ID (Location). Options: Enforce Referential Integrity (unchecked), Cascade Update Related Fields (unchecked), Cascade Delete Related Records (unchecked).

Relationship 2: Socket (Table/Query) is related to Motherboard (Related Table/Query). The relationship type is One-To-Many. The primary key is Socket (Socket) and the foreign key is Socket (Motherboard). Options: Enforce Referential Integrity (unchecked), Cascade Update Related Fields (unchecked), Cascade Delete Related Records (unchecked).

Relationship 3: Socket (Table/Query) is related to Processor (Related Table/Query). The relationship type is One-To-Many. The primary key is Socket (Socket) and the foreign key is Socket (Processor). Options: Enforce Referential Integrity (unchecked), Cascade Update Related Fields (unchecked), Cascade Delete Related Records (unchecked).



Database structure

Location.Board_ID to Motherboard.ID	2 marks
1 to many	1 mark
Socket.socket to Motherboard.socket	2 marks
1 to many	1 mark
Socket.socket to Processor.socket	2 marks
1 to many	1 mark