INFORMATION TECHNOLOGY **9626/02**

Paper 2 Practical **May/June 2019**

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 May/June 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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.

Video

Ellmau video	Image ratio of software set to 16:9	1 mark
	First 4.8 seconds of video removed	1 mark
	All elements fill the window	1 mark
Title frame/s	Snapshot of first frame extracted	1 mark
	… used at start as background image	1 mark
	… with Ellmau coat of arms added with transparency	1 mark
	… top right of screen and clearly visible	1 mark
	… with appropriate proportions and covers most of light	1 mark
	Title frame with coat of arms 10 seconds duration	1 mark
Title text	Animation effect gives time to read text	1 mark
	Title text **Celebrate the New Year with us**	1 mark
	Top left of screen and clearly visible	1 mark
	Large easily read white sans-serif font	1 mark
Video 1	Smooth transition into video / no movement	1 mark
	End of video cut	1 mark
	… so only 10 seconds of video remain	1 mark
	Snapshot of last frame extracted	1 mark
	Set as the caption background	1 mark
	Placed after video	1 mark
Caption	Different animation effect for caption	1 mark
	Caption frames 7 seconds duration	1 mark
	Caption in visible font with good contrast	1 mark
	Caption text includes Ellmau & Austria –	1 mark
	2nd block includes Fireworks at midnight	1 mark
	3rd block includes 31st December 2019	1 mark
Video 2	Clip Ellmau2 placed after caption	1 mark
	2-second transition between the caption and the clip	1 mark
Credits	Appropriate transition for credits background	1 mark
	Appropriate background for credits	1 mark
	… placed at end of second video clip	1 mark
	… of 7 seconds duration	1 mark
	Filmed by – GBRvideo	1 mark
	Location – Ellmau	1 mark
	Country – Austria	1 mark
	Date filmed – 31/12/2018	1 mark
	Cand. name & numbers in credits in appropriate format	1 mark
	Appropriate blank line(s) as spacing between credits	1 mark
	Movie saved/exported as Ellmau_1_ZZ999_9999	1 mark
	In mp4 format	1 mark

Audio file Opera.mp3

Audio file	End of clip removed	1 mark
	…cut to 43 seconds	1 mark
	Fade in present	1 mark
	…with appropriate duration for length of sound clip	1 mark
	Fade out present	1 mark
	…with appropriate duration for length of sound clip	1 mark
	Audio clip saved as Opera2_ZZ999_9999.mp3	1 mark

Video File Ellmau_2

Ellmau_2_	Soundtrack added as specified	1 mark
	Movie saved as Ellmau_2_ZZ999_9999.wmv	1 mark

Video File Ellmau_3

Ellmau_3_	Export or conversion as Ellmau_3_ZZ999_9999	1 mark
	In avi format	1 mark

Evaluation:

Evaluation of 2 data files for merging

6 from:
Most columns in same order and contain same data
Forename and Surname columns are reversed in 2 data sets
DOB and Age columns contain different data types
Age should never be used as a field as it constantly changes
Where age has been given DOB cannot be calculated
Address columns all have the same column heading
Both files contain blank rows which need to be removed
Both files stored in (unformatted) text format
Remove header row from second data set as files are merged

1 mark each Max 6

Employees.csv	Merge 2 documents into Employees9999.csv	1 mark
	Remove date of birth and age columns	1 mark
	With data integrity for Forename and Surname intact	1 mark

Forename	Surname
Arne	Bircher
Jon	Haby
Thomas	Tobler
Tim	Frueh
Dekke	Heitz
Simone	Aebi
Luca	Rim
Lara	Forrer
John	Zwinky
Romina	Von Gunten
Arenwald	Wurgler
Julian	Bruster

Sofia	Walp
Arda	Hegler
Nathan	Ganz
Alessandro	Messerli
Luca	Roser
Andri	Jud
Matteo	Nufer
Laura	Haener
Livio	Stager
Giulia	Ramseyer
Noah	Truby
Raphael	Michlig
Luca	Gisi

Matteo	Isch
Alice	Thoeny
Leonardo	Jud
Fabian	Ging
Leon	Joost
Nico	Lichty
Leandro	Laqua
Mattia	Polt
Camille	Oberlin
Matteo	Hilty
Mia	Leupp
Nico	Gantert
Lukas	Lutz

Tobias	Mayer	Andreas	Resch	Helena	Mayrhofer
Maximilian	Leitner	Markus	Fritz	Theresa	Posch
Alexander	Berger	Adrian	Riedl	Isabella	Schober
David	Fuchs	Martin	Konig	Miriam	Karner
Jonas	Eder	Fabio	Kaiser	Lilly	Reisinger
Simon	Fischer	Max	Bohm	Selina	Hofmann
Jakob	Schmid	Oliver	Mair	Marlene	Resch
Elias	Winkler	Jonathan	Hauser	Luisa	Fritz
Florian	Weber	Christian	Hofbauer	Vanessa	Riedl
Sebastian	Schwarz	Luis	Kaufmann	Larissa	Strobl
Julian	Maier	Nicolas	Winter	Emely	Holler
Paul	Schneider	Emil	Riegler	Maja	Schwaiger
Felix	Reiter	Yannick	Ortner	Anja	Rainer
Fabian	Mayr	Tim	Hackl	Jasmin	Neubauer
Leon	Brunner	Ben	Kern	Pia	Jager
Raphael	Wimmer	Sarah	Kogler	Anna-Lena	Grabner
Philipp	Lackner	Anna	Fink	Annika	Weis
Moritz	Wieser	Hannah	Seidl	Maria	Hartl
Daniel	Koch	Lena	Maurer	Nora	Friedl
Matthias	Stadler	Leonie	Mayrhofer	Valerie	Brandstatter
Luca	Weiss	Julia	Posch	Franziska	Horvath
Nico	Krenn	Sophie	Schober	Lukas	Klein
Niklas	Konig	Marie	Karner	Arda	Frank
Michael	Kaiser	Emma	Reisinger	Nathan	Hutter
Samuel	Bohm	Laura	Hofmann	Alessandro	Mullner
Noah	Mair	Johanna	Resch	Luca	Unger
Dominik	Hauser	Katharina	Fritz	Andri	Hager
Gabriel	Hofbauer	Valentina	Riedl	Matteo	Kofler
Benjamin	Kaufmann	Lea	Konig	Laura	Lindner
Johannes	Winter	Lara	Kaiser	Livio	Kainz
Marcel	Riegler	Sophia	Bohm	Mia	Wiesinger
Lorenz	Ortner	Mia	Mair	Tobias	Schweiger
Thomas	Hackl	Lisa	Hauser	Raphael	Hoffmann
Manuel	Kern	Jana	Hofbauer	Nico	Sommer
Valentin	Kogler	Emilia	Kaufmann	Matteo	Unger
Jan	Fink	Magdalena	Winter	Alice	Hager
Stefan	Seidl	Amelie	Riegler	Leonardo	Kofler
Konstantin	Maurer	Viktoria	Ortner	Fabian	Lindner
Christoph	Mayrhofer	Elena	Hackl	Leon	Kainz
Matteo	Posch	Clara	Kern	Nico	Wiesinger
Leo	Schober	Nina	Kogler	Leandro	Schweiger
Kilian	Karner	Alina	Fink	Mattia	Hoffmann
Marco	Reisinger	Emily	Seidl	Camille	Sommer
Clemens	Hofmann	Lina	Maurer		

Evidence 8
Alternative solution:
Spreadsheet   1 mark

Advantages of relational database:

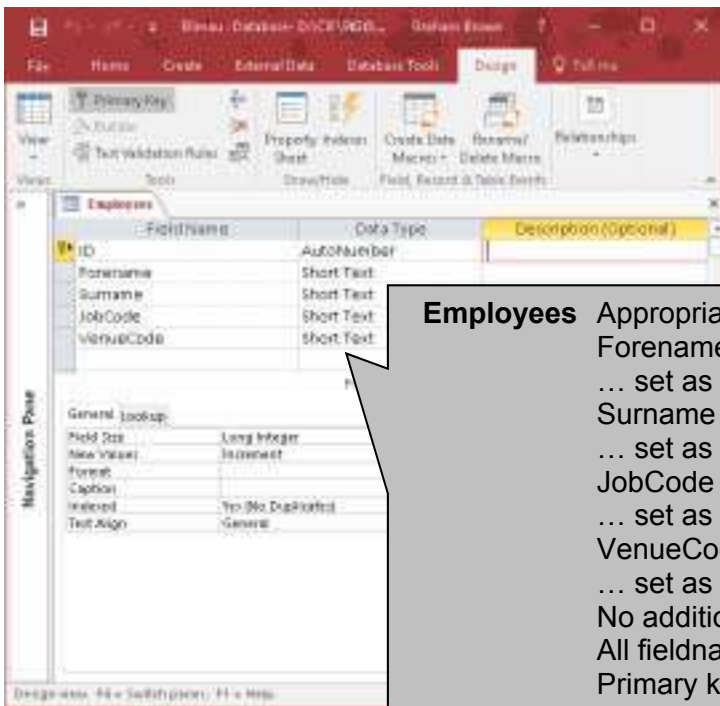**4 from:**
No duplication of data…
…quicker to edit/amend/delete data
…referential integrity/only need to edit/amend/delete data once …
…less chance of errors/omissions
No need for different worksheets/all data in same place
Relational database has more powerful search facilities

                                                             1 mark each Max 4

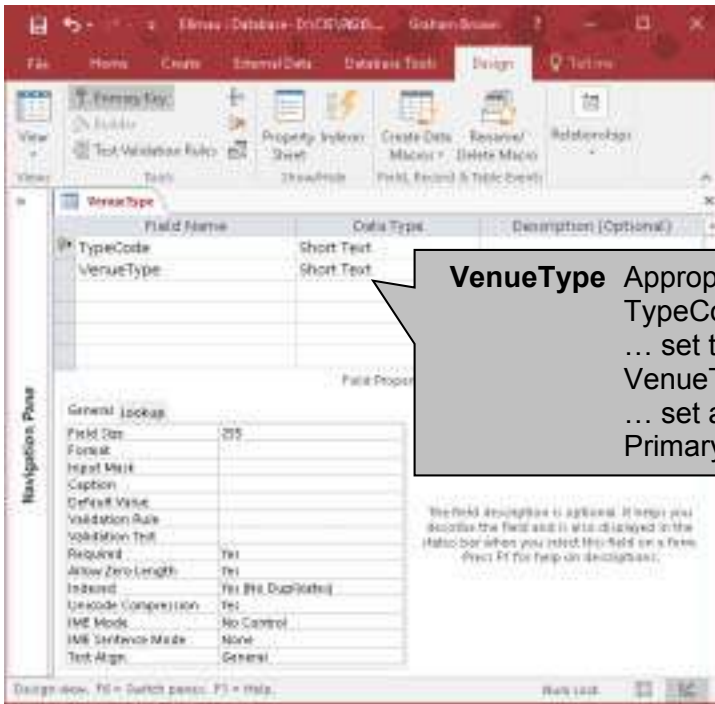|		
Employees	Appropriate table name: no Ellmau or Nos	1 mark
	Forename (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	Surname (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	JobCode (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	VenueCode (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	No additional fields	1 mark
	All fieldnames short and meaningful	1 mark
	Primary key on ID as Autonumber	1 mark
All tables	All fieldnames contain no spaces or underscores	1 mark
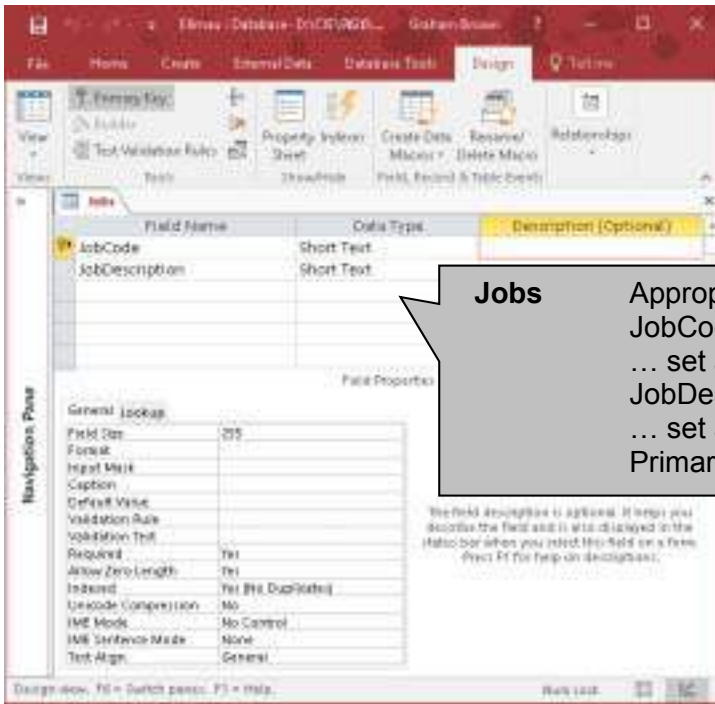
Jobs	Appropriate table name: no Ellmau	1 mark
	JobCode (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	JobDescription (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	Primary key on JobCode	1 mark
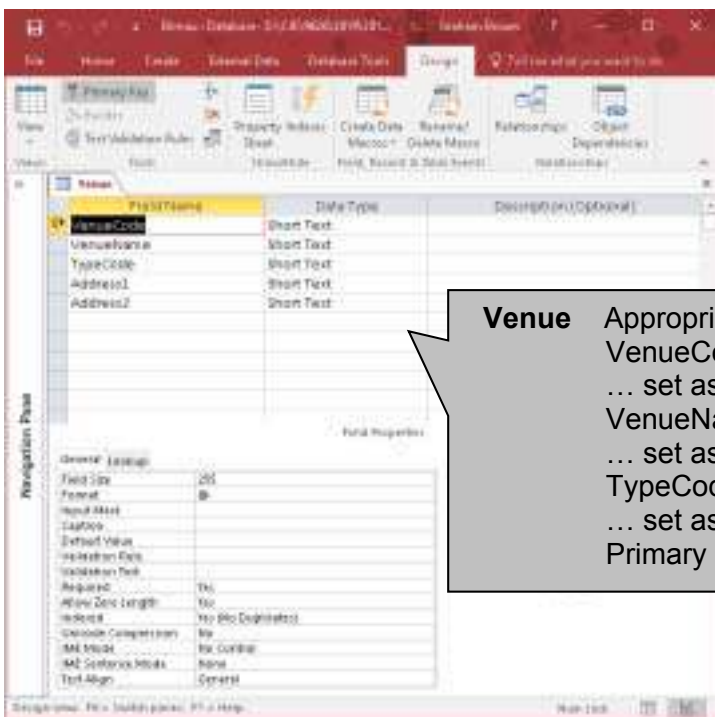
Venue	Appropriate table name: not Ellmau	1 mark
	VenueCode (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	VenueName (or similar)	1 mark
	… set as alphanumeric/text	1 mark
	TypeCode (or similar) – not Type as not 3NF	1 mark
	… set as alphanumeric/text or numeric	1 mark
	Primary key on VenueCode	1 mark

VenueType
Appropriate table name	1 mark
TypeCode (or similar) may be text/numeric	1 mark
… set to match data type of Venue.TypeCode	1 mark
VenueType (or similar)	1 mark
… set as alphanumeric/text	1 mark
Primary key on TypeCode	1 mark
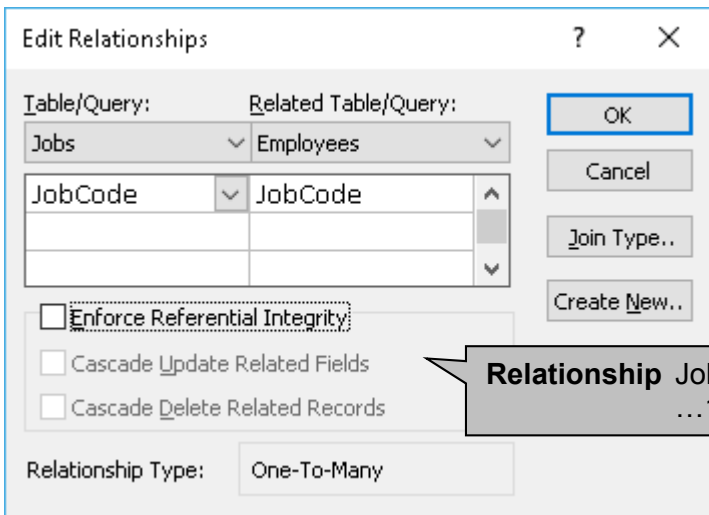
Relationship Jobs.JobCode to Employees.JobCode   2 marks
…1 to Many   1 mark
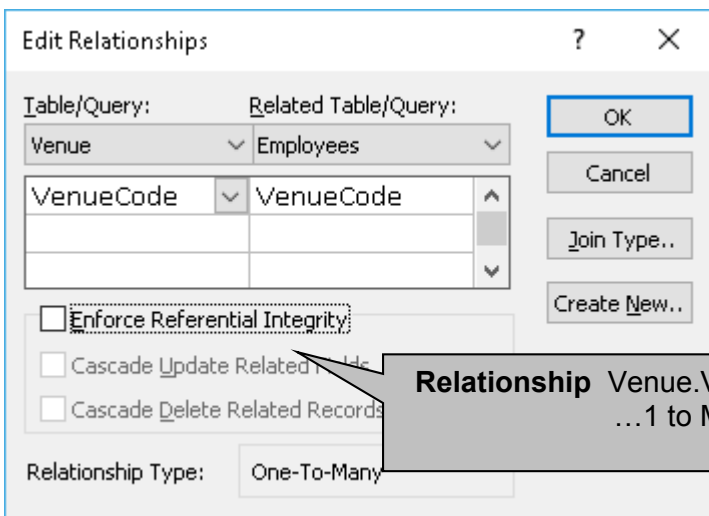
Relationship Venue.VenueCode to Employees.VenueCode   2 marks
…1 to Many   1 mark

Edit Relationships dialog box:

Table/Query:	Related Table/Query:	OK
VenueType	Venue	Cancel
TypeCode	TypeCode	Join Type..
		Create New..

☐ Enforce Referential Integrity
☐ Cascade Update Related Fields
☐ Cascade Delete Related Records

Relationship Type: One-To-Many

Relationship VenueType.TypeCode to Venue.TypeCode   2 marks
…1 to Many   1 mark

Chef or Trainee Chef for each venue report

Report   Chef OR Trainee Chef only   1 mark
                 Venue Name and Address as row headings   1 mark
                 Job Description (not code) as column headings   1 mark
                 Correct counts and gridlines with no totals   1 mark