

Cambridge  
International  
AS & A Level

**Cambridge International Examinations**  
Cambridge International Advanced Subsidiary and Advanced Level

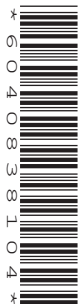
CANDIDATE  
NAME

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--



**INFORMATION TECHNOLOGY**

**9626/13**

Paper 1 Theory

**October/November 2017**

**1 hour 45 minutes**

Candidates answer on the Question Paper.

No Additional Materials are required.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces at the top of this page.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

Any businesses described in this paper are entirely fictitious.

This document consists of **14** printed pages and **2** blank pages.

- 1 Tick the **four** most accurate statements about relational databases.

	✓
Duplication of data is avoided saving storage space.	
Every individual mistake in the database has to be manually corrected in all tables.	
It is easier to produce cross-tabular reports in relational databases than with flat file databases.	
The only two possible relationships are one-to-one and many-to-one.	
It is impossible to make mistakes when entering data into a relational database.	
Tables can be linked using a key field.	
There must be at least three tables in a relational database.	
Primary keys are unnecessary whereas you must have them with flat file databases.	
Relational databases cannot store as much information as flat file databases.	
Referential integrity helps to prevent database users entering inconsistent data.	

[4]

- 2 Tick the **four** statements referring to the use of the internet and the World Wide Web which are true.

	✓
The internet is fully policed and safe.	
Information on the World Wide Web tends to be up to date.	
The World Wide Web has vast amounts of information.	
All information on the World Wide Web is unbiased.	
All websites are accurate.	
Lack of expertise in using search engines can lead to inefficient searching.	
It is more difficult to plagiarise information using the World Wide Web than copying out of a hard copy book.	
There is a danger of accessing inappropriate websites.	
The internet is smaller than an intranet.	
The World Wide Web and the internet are the same thing.	

[4]











- 7 Fig. 1 below shows a small extract from a school database. All students shown are in year groups 9, 10 or 11 depending on their year of birth. Each student's year group, which is not part of the database, is shown in Fig. 2.

student_ID	student_name	option_1	option_2	year of birth
100132	Marian Griffith	Geography	Art	2001
101648	Manjit Dupay	Sociology	Design Tech	2003
103457	Ho Chan	History	Spanish	2002
104895	Johan Schmidt	Geography	Art	2002
105456	Paul Dugarry	History	German	2001
105645	Li Cho	History	Latin	2002

Fig. 1

Name	year_group
Marian Griffith	11
Manjit Dupay	9
Ho Chan	10
Johan Schmidt	10
Paul Dugarry	11
Li Cho	10

Fig. 2

The **year\_group** field needs to be added to the database and will be a calculated field.

- (a) Explain how you would set up the calculated **year\_group** field.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[6]







- 9 Wilhelm has tried importing a word-processed file into his spreadsheet but the software gives the error message 'file format not valid'.

Explain why this has happened and explain what Wilhelm should do to his data to enable him to load it into his spreadsheet.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

- 10 Describe the characteristics which make spreadsheets suitable for modelling situations.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]







**BLANK PAGE**

**BLANK PAGE**

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cie.org.uk](http://www.cie.org.uk) after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.