

CANDIDATE  
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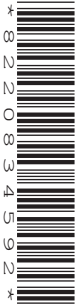
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CENTRE  
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**INFORMATION TECHNOLOGY**

**9626/12**

Paper 1 Theory

**May/June 2018**

**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.

**Calculators must not be used on this paper.**

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 **15** printed pages and **1** blank page.

- 1 Tick the **four** most accurate statements referring to dynamic and static data.

	✓
Dynamic data is data that does not change.	
Data that is read from and not written back to a file is called static data.	
Data stored on a CD ROM is an example of dynamic data.	
Data on a web page that is updated from time to time is an example of dynamic data.	
It is very difficult to add information to a static information source after it has been created.	
There is a limited amount of information in a dynamic information source compared to a static one.	
Dynamic information sources are never checked for accuracy.	
A static information source can have information updated quickly.	
The data in a static data source is always up to date.	
There can be many contributors to a dynamic data source so the information can be inaccurate.	

[4]

- 2 Tick the **four** most accurate statements referring to hardware and software.

	✓
Compilers and linkers are examples of system software.	
Device drivers and interpreters are examples of application software.	
Word processing and spreadsheets are examples of hardware.	
Software is another name for computer programs.	
Software is written in machine code before being converted to high-level language.	
Viruses are a type of software.	
Malicious bots are a type of hardware.	
System software directly operates the computer hardware.	
Operating systems are types of hardware.	
A mouse and keyboard are the basic software components of a computer.	

[4]



- 4 Many personal computers are bought with certain types of software already installed. This includes a number of items of utility software.

Describe how each of the following utilities carries out its function.

(a) Anti-virus software .....  
.....  
.....  
.....  
.....[2]

(b) Backup software .....  
.....  
.....  
.....  
.....[2]

(c) Disk defragmentation software .....  
.....  
.....  
.....  
.....[2]

5 Computer controlled traffic lights are used to control traffic flow in major cities.

Identify **three** input devices which could be used and describe their use in such a system.

Device 1 .....

.....

Use .....

.....

.....

Device 2 .....

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Use .....

.....

.....

Device 3 .....

.....

Use .....

.....

.....[6]



7 A managing director of a company supervises other directors. Each director has three departments they are responsible for. Each department has several workers. The company stores information about all its workers in a hierarchical database.

Explain what is meant by a hierarchical database management system and describe how such a system would be used to store the workers' data.

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[5]












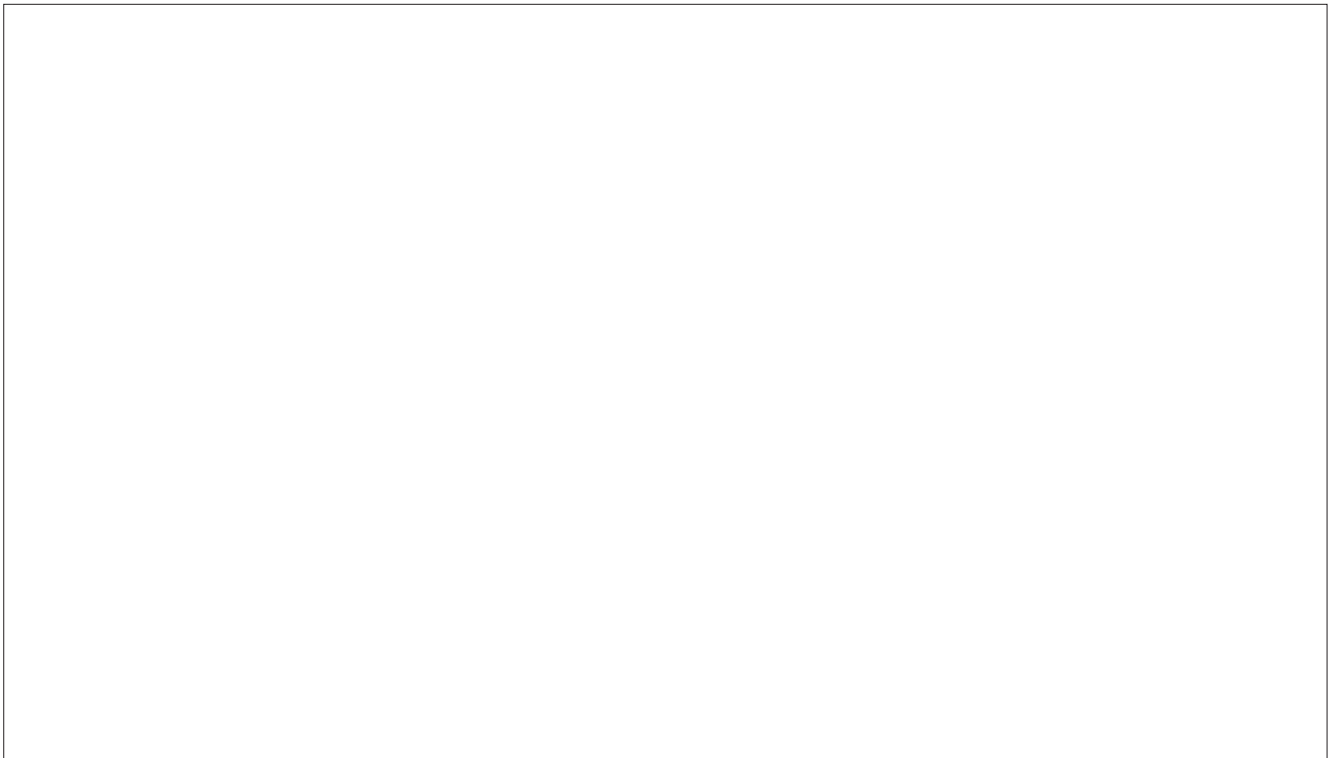


- 10 A car salesroom has a relational database which stores details of the cars and the customers who have purchased a car. The manager uses it to search for information about the cars and the customers. She also produces reports based on these searches.

<b>Tables</b>
<b>Queries</b>
 Customers second names beginning with
 Price of car
<b>Forms</b>
 Customers
<b>Reports</b>
 All cars in stock
 Price less than \$20000

- (a) She wants to have an easier way of accessing the queries, forms and reports.

Design a switchboard for her which will allow her to go to any of the reports, forms or queries already set up as shown in the image above.



[4]

(b) Referring to any **four** interactive items on your switchboard explain what will happen if they are selected.

Item 1 .....

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Item 2 .....

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Item 3 .....

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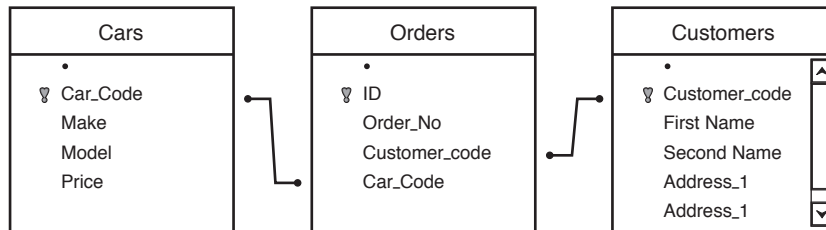
Item 4 .....

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.....[4]

(c) Below is a diagram showing the tables in the database.



The car salesroom manager wanted a list of cars made by Frod as well as, in the same list, any cars ordered by customers whose second name begins with B.

The printout shows the makes and models of cars, first and second customer names who have ordered them and the order number.

Make	Model	First Name	Second Name	Order_No
Frod	Deomon	Alan	Sutton	9
Frod	Deomon	Bruce	Silversmith	8
Frod	Deomon	Johann	Schmidt	5
Frod	Deomon	Brian	Biggins	3
Olap	Azum	George	Babak	10
Yatoya	Yangtse	Kulvir	Bains	7







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