

NDTEF/LONDON EXAMINATIONS

Information Technology
GCSE 2708

Exam Paper

Full Course
(Higher Tier)

JUNE 2000

Question 1

Marks

Here is part of a leaflet advertising an international sporting event.



Advertising for the event is also on CD-ROM and the World Wide Web.

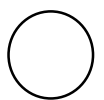
1a Complete the table below to show which of the following you could find on each of the advertising media.

Information

Leaflet CD-ROM WWW

- Black/white graphics
- Colour graphics
- Audio recording of the games anthem
- Interactive booking form
- Different fonts
- Video highlights from the last games
- Up to the minute news
- Hypertext e-mail link
- Formatted text

	Leaflet	CD-ROM	WWW
Black/white graphics	✓	✓	✓
Colour graphics			
Audio recording of the games anthem			
Interactive booking form			
Different fonts			
Video highlights from the last games			
Up to the minute news			
Hypertext e-mail link			
Formatted text			



8 marks

The text for the leaflet was typed into a word processor and saved to disk.
This was then transferred to a desk top publisher package using a technique called copy and paste.

1b Put the following operations into the correct sequence for putting together the Desk Top Published leaflet.

- A Select an empty graphics “frame” within the desk top publisher document
- B Open the document containing the word processed text
- C Copy / paste the graphics
- D Highlight (or select) the graphics you require
- E Load up the desk top publisher software
- F Position the cursor to receive the text
- G Paste the text
- H Load the word processor
- I Open the clipart “library”
- J Copy the text
- K Highlight (or select) the text you require

First

Last

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6 marks

1c Give **THREE** objectives that a desk top published document should try to achieve when advertising an event such as this.

Objective 1 _____

Objective 2 _____

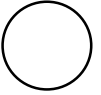
Objective 3 _____



3 marks

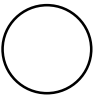
Marks

1d Describe **ONE** problem that may occur if a large amount of clipart is placed onto the document before the text is formatted.



2 marks

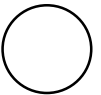
1e Describe the difference between *cut* and *copy* when editing text.



2 marks

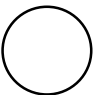
1f Explain what is meant by the following sentence:

“There were two text boxes with the text flowing from the first to the second page.”



3 marks

1g Give **ONE** use for the **grid** option often found in desk top publisher packages.



1 mark

Total

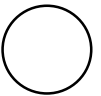
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Max 25

Question 2

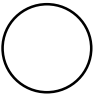
A presentation software package is also used to accompany talks about the games.
The software makes use of a slide show of screens containing text and graphics.
When the slide show was constructed, the same template was used for each screen.

2a Describe what is meant by a *template*.



2 marks

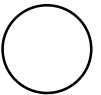
2b Give **ONE** reason why, when the slide show was constructed, the same template was used for each screen.



1 mark

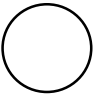
The presentation software has two display modes, automatic and manual.

2c Describe what is meant by “automatic mode — 5 second delay”.



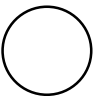
2 marks

2d Describe **ONE** situation where **automatic** mode might be appropriate.



2 marks

2e Describe **ONE** situation where **manual** mode might be appropriate.



2 marks

Marks

2f Describe, giving **ONE** example, what is meant by transition between frames in the slide show.



2 marks

The presentation software package can be upgraded to a later version offering interactive page routing and full multi-media facilities with backward compatibility for file handling.

2g State **TWO** extra facilities that full multi-media could offer.

Facility 1 _____

Facility 2 _____



2 marks

2h Explain what is meant by backward compatibility for file handling.



3 marks

2i Draw lines linking the items at the base to the appropriate features on the interactive screen below.



Clipart

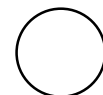
Design Feature

Hyperlink

Bullet Point

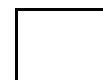
Home Button

QUESTION 3 BEGINS ON THE NEXT PAGE



5 marks

Total



Max 21

Question 3

Julie Brown works for the games.
Sometimes Julie works away from her office so she needs a laptop computer.
Her laptop has a built-in modem.
Julie also has a mobile phone.

3a Describe **ONE** situation where Julie needs to use the modem.



2 marks

3b Describe **ONE** situation where Julie needs to use the mobile phone.



2 marks

Julie has to buy a printer to produce mailmerged letters.
She is trying to choose between a **laser** and an **inkjet** printer.

3c Describe **THREE** criteria Julie might consider when making her choice.

Criterion 1 _____

Criterion 2 _____

Criterion 3 _____



6 marks

Below is a list that Julie word processed.

Jobs to Do

- 1 Contact Endersley Catering re:leaflet
- 2 Go to the Frenleigh Stadium and check the systems there.
- 3 Call Narinda and talk to her about the presentation.
- 4 Send out the invitations to the VIP Guests.

NB Find the spare costume for Frenleigh Freddie!

Key dates

6th March - promotional leaflet out
5th May - all entry forms out
12th July - all entries in

Julie Brown

3d State **TEN** different ways in which sections of text within the page have been formatted.

1 _____

2 _____

3 _____

4 _____

5 _____

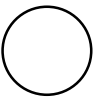
6 _____

7 _____

8 _____

9 _____

10 _____



10 marks

Total




Max 20

Question 4

Endersley Catering operate a booking system for their restaurants.
 Visitors book meals on entry to the stadium using interactive terminals.
 There are four restaurants at the North, South, East and West stadium gates.
 Each offers the same choice of three starters, three main courses and three desserts.
 Tables are available for up to 2, 4 or 6 people.



3 marks




Welcome to Endersley Catering Booking System

Please enter your selection into the spaces below and press ENTER when your selection is complete.

Surname: **Number dining:**
(Maximum 6)

Booking Time (24hr clock) : **Restaurant (N/S/E/W)**

Soup <input type="text" value="2"/>	Prawn Cocktail <input type="text" value="2"/>	Melon <input type="text" value="1"/>
Carvery <input type="text" value="4"/>	Chicken Curry <input type="text" value="0"/>	Ratatouille <input type="text" value="1"/>
Neapolitan Bombe <input type="text" value="3"/>	Gateau <input type="text" value="1"/>	Fresh Fruit Salad <input type="text" value="1"/>



A	B	C	D	E	F	G	H	I	J	K	L	M		Delete
N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Next	Back
1	2	3	4	5	6	7	8	9	0	-	'		ENTER	

4a State how many **fields** there are in each record. _____

4b State **ONE** field that contains only **text** data. _____

4c State **ONE** field that contains only **numeric** data. _____

Two validation rules for the orders are that:

Soup + Prawn Cocktail >= 0

Soup + Prawn Cocktail <= Table for...

4d Explain the reasons for these two rules.

Soup + Prawn Cocktail ≥ 0 _____

Soup + Prawn Cocktail \leq Table for... _____



5 marks

Fred and Polly both use the booking system to order meals for their families. Polly input an order for 5 Prawn Cocktails which was **accepted** by the system. Fred input an order for 5 Prawn Cocktails which was **rejected** by the system.

4e Describe **TWO** reasons why this might happen.

Reason 1 _____

Reason 2 _____



4 marks

Bookings are taken from 6.30 pm until 9.30 pm at 30 minute intervals.

4f Write down a set of validation rules for the time field.



4 marks

Total
Max 16

Question 5

Endersley Catering use a spreadsheet to record the restaurant bookings.

A meal is assumed to take 1 hour.

Each booking is allocated a table and the number of people in the party is entered into the spreadsheet.

The booking sheet for one evening at the North restaurant is shown below.

Fred and Polly are both booking tables at this restaurant.

A	B	C	D	E	F	G	H	I	J	K
1	Table	Seats	6.30	7.00	7.30	8.00	8.30	9.00	North 9.30	12/05/2000 10.00
2	i	4			4	4	4	4	3	3
3	ii	4		4	4					
4	iii	2	2	2	2	2		2	2	
5	iv	4		4	4	4	4	4	4	
6	v	6	5	5	6	6		5	5	
7	vi	2		2	2		2	2	2	2
8	vii	2	2	2		2	2	2	2	
9	viii	4		3	3			2	2	
10	ix	4		4	4	2	2	2	2	
11	x	6	6	6		4	4	4	4	
12	Total	38								
13	Customers		15	32	29	24	18	27	26	5
14	% Full		39.5	84.2	76.3	63.2	47.4	71.1	68.4	13.2
15	Total Cust.	88								
16	Overall % Full	57.9								

5a Write Fred’s booking for a table for 4 at 9.00 onto the spreadsheet.

5b Describe how **other** cells will change as a result of Fred’s booking.

Cell _____ Changed to _____

Cell _____ Changed to _____

Cell _____ Changed to _____

Cell _____ Changed to _____

Cell _____ Changed to _____

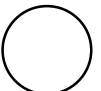
Cell _____ Changed to _____

○
2 marks

○
6 marks

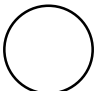
5c Write down a suitable formula for cell **D15**.

Marks



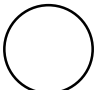
3 marks

5d Explain what would happen if Polly tried to make a booking for five people at 8.00.



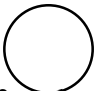
3 marks

5e Describe how Endersley Catering might make use of the data from the **% Full** row.



2 marks

5f Describe **ONE** reason for having column K in the spreadsheet when it is not possible to book a table for 10.00.



2 marks

Total

Max 18

Turn Over

Question 6

Here is part of a booking form for the Endersley Catering restaurants.

<i>Order Form</i>	<h1>Endersley Catering</h1>
<i>State quantity required of each item in the appropriate box below:</i>	
Starter:	<input type="checkbox"/> Prawn Cocktail <input type="checkbox"/> Soup
Main:	<input type="checkbox"/> Chicken Curry <input type="checkbox"/> Lamb Chops <input type="checkbox"/> Pork Sausages
Dessert:	<input type="checkbox"/> Ice Cream <input type="checkbox"/> Gateaux
<i>Fill in the appropriate box below:</i>	
Table for:	<input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6
Time:	7.00 <input type="checkbox"/> 7.15 <input type="checkbox"/> 7.30 <input type="checkbox"/> 7.45 <input type="checkbox"/> 8.00 <input type="checkbox"/> 8.15 <input type="checkbox"/> 8.30 <input type="checkbox"/> 8.45 <input type="checkbox"/>

6a Explain which fields from the above form could be read by means of an Optical Mark Reader (OMR) system.

○
2 marks

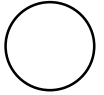
In order to read the other data on the form, Optical Character Recognition (OCR) software is used.

6b Describe what OCR software does.

○
3 marks

Marks

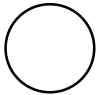
6c State **ONE** advantage of this method of input.



1 mark

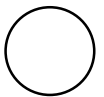
6d Describe **ONE** other situation in which Optical Mark Readers might be used in **EACH** of the following areas:

Smart Card System



2 marks

Fit For Life Health & Fitness Centre



2 marks

Total

Max 10

Turn Over

Question 7

Endersley Catering use an **EPOS** (**E**lectronic **P**oint **O**f **S**ale) system in each of their fast food outlets.
The electronic tills have touch pad ordering input devices rather than conventional keyboards.

7a Explain how the touch pad devices and EPOS system might assist the following people.

The cashier at the till _____



3 marks

The food stock manager _____



3 marks

The sales manager _____



3 marks

Endersley Catering are improving their systems to allow customers to pay for their orders using credit cards.

7b State what additional equipment will be required at the tills.



2 marks



6 marks



4 marks



2 marks

Total



Max 23

7c Put the following operations into the correct sequence for Electronic Funds Transfer.

- A Cashier swipes the credit card through the reader
- B Endersley Catering’s bank is contacted via a modem link
- C Customer signs the receipt and is given their card back
- D Cashier keys in the order and informs the customer of the total price
- E Money is credited to the Endersley Catering bank account
- F An authorisation code is received if there are sufficient funds
- G Customer gives the cashier the credit card
- H Customer account is checked for sufficient funds
- I The amount of money is debited from the customer’s bank account
- J Customer places the order
- K Customer’s bank is contacted via a modem link

First Last

--	--	--	--	--	--	--	--	--	--	--

Customers can pay for food with a Games Smart Card.
 These cards contain an electronic chip that stores an amount of credit.
 Each time the customer uses a card, the payment is debited from that card.
 Card holders can add credit to their cards by entering a **Personal Identification Number (PIN)** using special machines situated around the stadium.

7d Describe **TWO** advantages to the fast food outlet of this method of payment.

Advantage 1 _____

Advantage 2 _____

7e Describe **ONE** advantage to the customer of this type of card.

Question 8

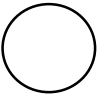
In order to get the **interactive** Instant Replay service, households must:

- ◆ be able to receive digital cable TV
- ◆ have an interactive keypad attached to their television receiver
- ◆ subscribe on a pay for view basis.

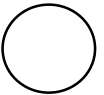
8a Describe **TWO** problems that may arise for families who wish to use the instant replay service.

Problem 1 _____

Problem 2 _____

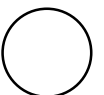

4 marks

8b Describe what is meant by the term **interactive**.



2 marks

8c Describe **ONE** advantage and **ONE** disadvantage to households of the **pay for view** subscription system.

Advantage _____


4 marks

Disadvantage _____

Total

Max 10

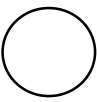
Question 9

The Instant Replay service makes use of the latest **digital editing** techniques.

9a State **TWO** advantages of digital editing over analogue editing.

Advantage 1 _____

Advantage 2 _____

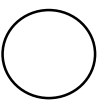


2 marks

9b Describe **TWO** situations where people might be concerned about the ability of modern computers to edit video pictures digitally.

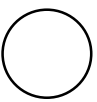
Situation 1 _____

Situation 2 _____



4 marks

Archive footage of previous games is held in storage.
At present the old film and video tapes are being converted to **Digital Video Disc (DVD)**.



1 mark

9c Give **ONE** reason why DVD is a better storage medium for this purpose.

Total

Max 7

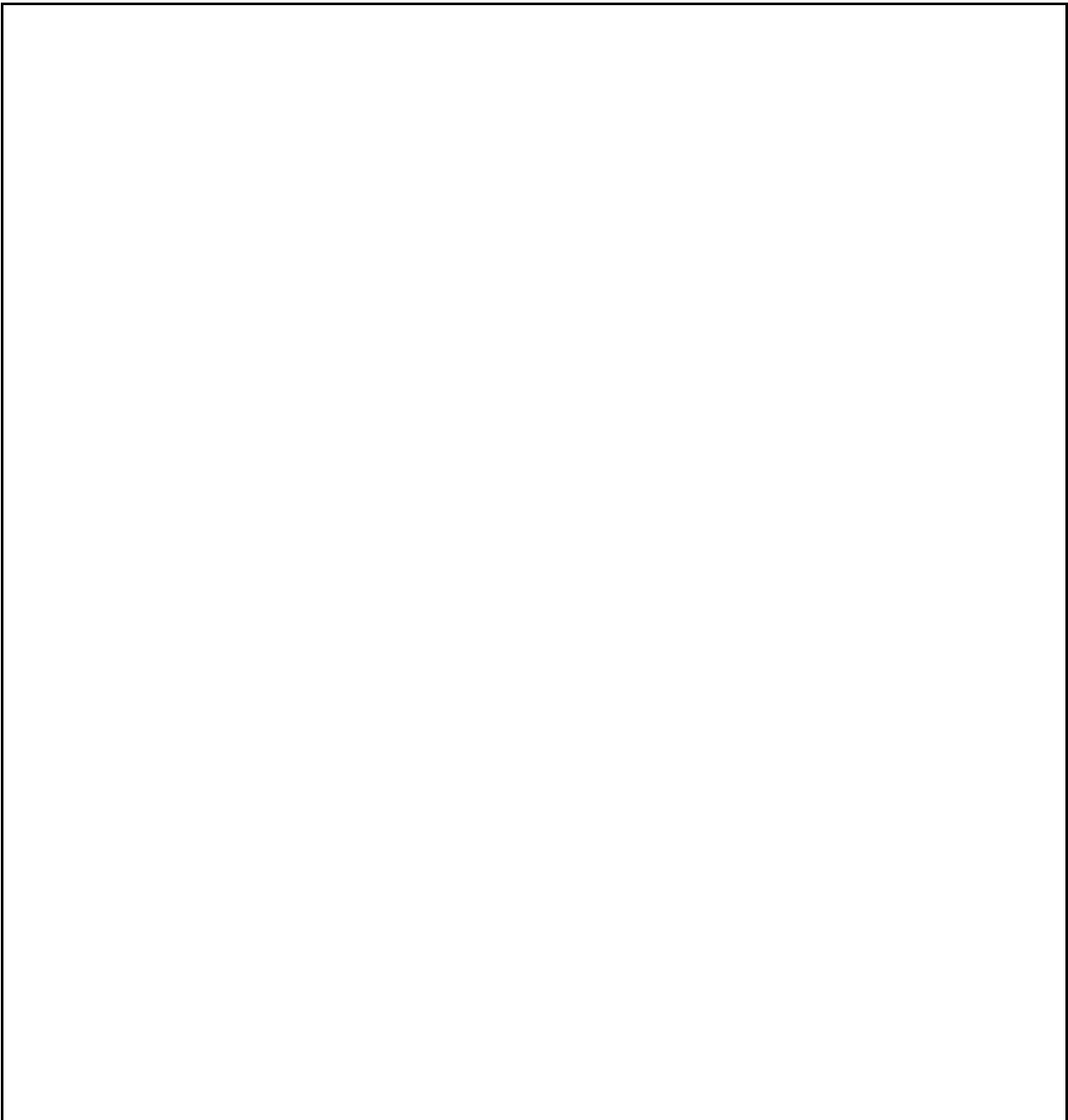
Turn Over

Question 10

Endersley Catering want to evaluate what their customers think of their restaurant service.

They have decided to produce a questionnaire for customers, the responses to which will be fed directly into a database.

Design a form asking **FOUR** questions to provide information to Endersley Catering as to what their customers think of the restaurant service.



Total

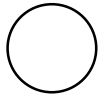
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Max 8

Question 11

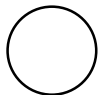
Fit for Life centres use ICT equipment to monitor training for athletes at the games.
Heart rate monitors are used to control the intensity of workout programmes. A fitness test produces data to compare levels of fitness.
To carry out the fitness test, the athlete must first input age, sex and weight.

11a State **FIVE** fields that would be required as a minimum to record information about an athlete.



5 marks

11b As the database will hold personal information, describe **ONE** method that could be used to protect this data from unauthorised access.

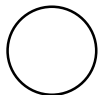


2 marks

11c Insert the correct words into the paragraph below.

printed database format searched

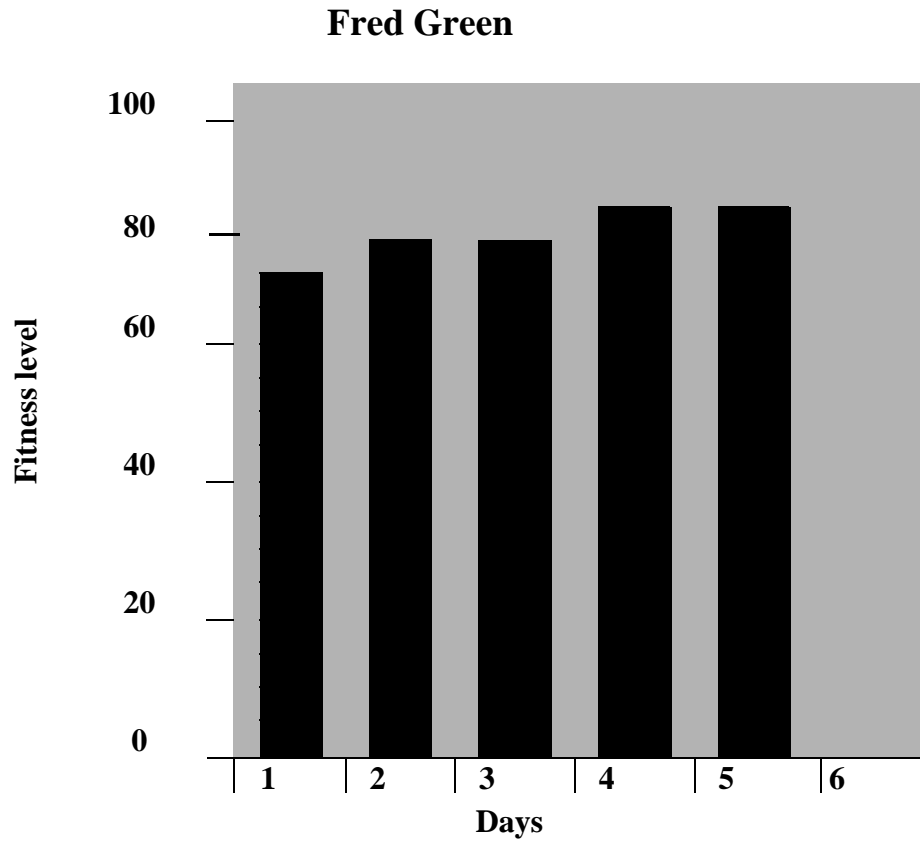
To produce a fitness report the _____ was _____ to locate the data for the athlete required. The report option was selected, the _____ of the report chosen and the relevant data _____ out.



4 marks

Turn Over

Below is a graph derived from a spreadsheet, indicating progress over a six-day period for an athlete.



The graph is updated each day for the athlete using a macro.

The athlete's report is Desk Top Published, combining the latest details from the fitness database alongside the graph of the most recent fitness tests.

Marks



3 marks

11d Explain what is meant by a **macro**.



3 marks

11e Explain how **Object Linking and Embedding (OLE)** could be used to facilitate the production of this report.

Total

Max 17

