

**GENERAL CERTIFICATE OF SECONDARY EDUCATION**  
**APPLIED INFORMATION AND**  
**COMMUNICATION TECHNOLOGY (Double Award)**  
ICT Knowledge and Understanding

**4872**

Candidates answer on the question paper.

**OCR supplied materials:**  
None

**Other materials required:**  
None

**Tuesday 18 January 2011**  
**Morning**

**Duration:** 1 hour 30 minutes



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**INSTRUCTIONS TO CANDIDATES**

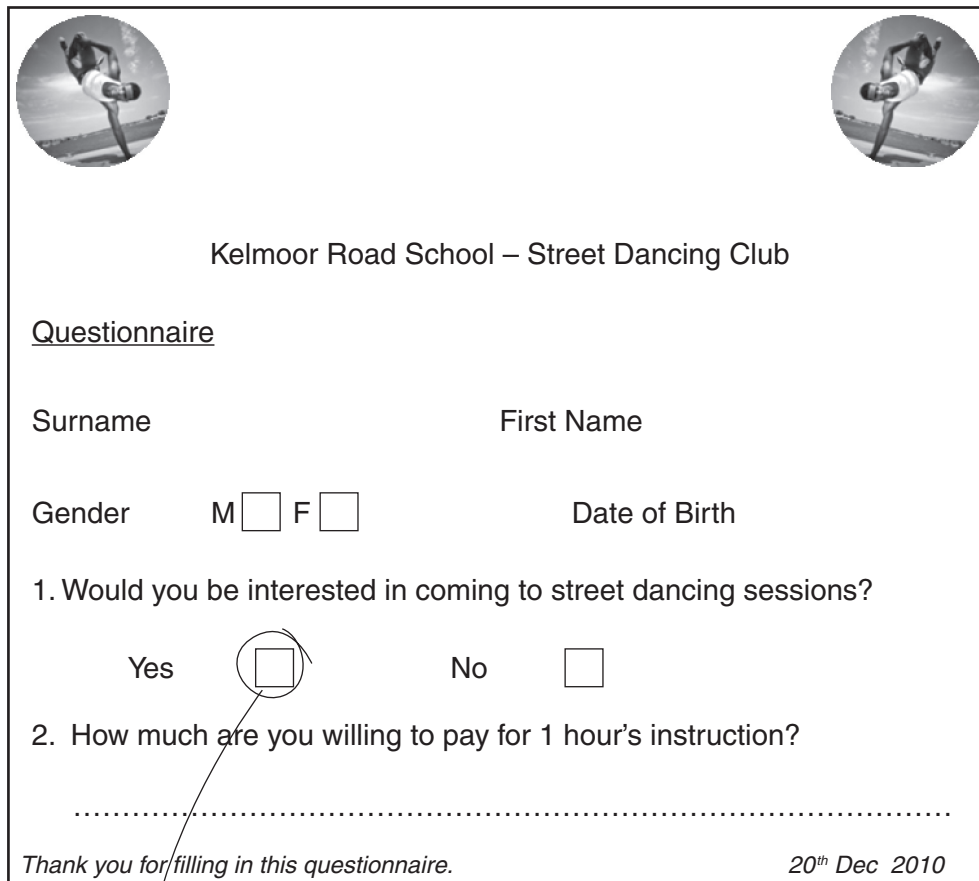
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Answer **all** the questions.
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **100**.
- No marks will be awarded for using brand names of software packages or hardware.
- This document consists of **16** pages. Any blank pages are indicated.

A group of students at Kelmoor Road School wants to hold practice sessions for street dancing using the school's facilities. The Headteacher of the school wants to know if this will be popular amongst the other students. Akash has been asked to carry out the research.

- 1 Fig. 1 below shows a questionnaire that Akash has produced to find out how popular the classes would be.



Kelmoor Road School – Street Dancing Club

Questionnaire

Surname \_\_\_\_\_ First Name \_\_\_\_\_

Gender M  F  Date of Birth \_\_\_\_\_

1. Would you be interested in coming to street dancing sessions?

Yes  No

2. How much are you willing to pay for 1 hour's instruction?

.....

*Thank you for filling in this questionnaire.* *20<sup>th</sup> Dec 2010*

A

**Fig. 1**

- (a) Circle the following features on the questionnaire and label them as shown in the table below. You should only label **one** example for each feature.

The first one in Fig. 1 has been done for you as an example.

Label	Feature
A	text box
B	centred text
C	italic text
D	text that has been positioned using the TAB key
E	underlined text
F	superscript

[5]

- (b) State **two** improvements that you could make to the **layout** of the questionnaire. Give a reason for each.

Improvement 1 .....

.....

Reason .....

.....

Improvement 2 .....

.....

Reason .....

..... [4]







2 Akash used his home computer system to produce the questionnaire.

(a) State **two** suitable input devices that he may have used.

- 1 .....
- 2 ..... [2]

(b) State **two** suitable output devices that he may have used.

- 1 .....
- 2 ..... [2]

(c) State **one** suitable storage medium Akash may have used to save the questionnaire.

- ..... [1]

(d) Akash backs up his work.



(i) What is a back up?

- .....
- ..... [1]

(ii) Why does Akash back up his work?

- .....
- .....
- .....
- ..... [2]

Akash's questionnaire has been copied below so that it can be referred to when answering question 3.

Kelmoor Road School – Street Dancing Club

Questionnaire

Surname \_\_\_\_\_ First Name \_\_\_\_\_

Gender    M     F                       Date of Birth \_\_\_\_\_

1. Would you be interested in coming to street dancing sessions?

          Yes                              No       

2. How much are you willing to pay for 1 hour's instruction?

.....

*Thank you for filling in this questionnaire.* *20<sup>th</sup> Dec 2010*

**3** Akash wants to create a database to store details of students interested in coming to street dancing sessions.

**(a)** Using the information in the questionnaire, complete the table below for **four** additional fields.

The first one has been completed for you as an example.

Field name	Data type	Validation
surname	text	length not more than 20 characters

[12]



(b) Akash needs more information than shown in the questionnaire.

State **one** additional item of personal information that Akash needs to collect.

.....

Give a reason why he needs this information.

.....

.....

.....

..... [2]

(c) Akash adds a key field to the design of the database.

What is the purpose of a key field?

.....

.....

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..... [2]

(d) Give **four** reasons why Akash has decided to put details about each student who is interested in attending the street dancing club into a computerised database.

1 .....

.....

2 .....

.....

3 .....

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4 .....

..... [4]

- 4 Akash has asked a friend, Freda, to find out whether the club can afford to pay an instructor to lead the street dancing sessions. Freda has modelled the profit/loss of a session using the spreadsheet shown in Table 1.

	A	B
1	<b>Expenses</b>	
2	Instructor	£17.75
3		
4	<b>Income</b>	
5	Number of students	30
6	Charge per session	£0.50
7		
8	Total income	£15.00
9		
10	<b>Profit</b>	<b>-£2.75</b>

**Table 1**

- (a) (i) Give **one** way that the width of the cells in column A could have been increased.

..... [1]

- (ii) State the formula that would be used in cell B8.

..... [2]

- (iii) State the formula that would be used in cell B10.

..... [2]

**(b)** In column B some cells are formatted as currency.

What does formatted as currency mean?

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.....

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..... [2]

If the street dancing club had 30 students paying £0.50 each, there would be a loss of £2.75.

**(c)** Explain how Freda can use the features of her spreadsheet model to show Akash how the club could avoid making a loss.

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..... [5]

5 Akash has created a number of folders to save his work.

His folders are shown in Fig. 4.



Fig. 4

Akash stores all his files as shown in the table below.

Folder name	Folder contents
Akash 1	school ICT work
Akash 2	other school work
Akash 3	photographs
Akash 4	clipart
Akash 5	street dancing club

(a) (i) Why is it **inappropriate** to name his folders in this manner?

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.....

.....

..... [2]

(ii) Complete the table below to show a better way of naming his folders.

Existing folder name	New folder name
Akash 1	
Akash 2	

[2]

- (iii) Akash has all the files concerning the street dancing club stored in 'Akash 5'. These include, for example, files concerning members, financing the sessions, hiring an instructor, mail merge letters to members and advertising flyers. He has difficulty finding specific files.

Explain how he could organise this folder so that he can readily find a specific file.

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[4]

- (b) Akash often spends three hours at a time working at his computer.

State **two** potential health risks that could be caused by working at a computer for long periods of time.

For each, state how the health risk can be reduced.

Health risk 1 .....

How the risk can be reduced .....

.....

.....

Health risk 2 .....

How the risk can be reduced .....

.....

..... [4]

(c) Akash is concerned that somebody could access his work.

Give **two** ways that Akash could protect his files from unauthorised access.

1 .....

.....

2 .....

..... [2]

6 When Akash searched for an instructor he used a number of web facilities.

Explain the following terms:

(a) web browser

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..... [3]

(b) hyperlink

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..... [2]

(c) on-line encyclopaedia

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..... [3]

(d) search engine

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.....  
.....  
.....  
.....  
..... [3]

(e) favourite (bookmarked) web addresses

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.....  
.....  
.....  
.....  
..... [3]

