MARK SCHEME for the October/November 2014 series

0417 INFORMATION AND COMMUNICATION TECHNOLOGY

0417/02 Paper 2 (Practical Test A), maximum raw mark 80

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 will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2014 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

Candidate name, Centre number, candidate number

Header
Name, candidate number, Centre number   1 mark

Input devices for a gaming computer

Title
Title entry accurate, formatted 36 pt sans-serif   1 mark
Italics and centred   1 mark

Mice for gamers by: name

This is the fourth of our articles on building

Section break after titles
3 columns   1 mark
1 cm space   1 mark

explored choosing a motherboard and CPU

for a maximum speed gaming machine. Then

we looked at cases, power supplies and hard

disk drive storage. This week we consider

input devices suited to a gamer.

Many   types   of

computer

have

designed sin

mouse devic

first developed. When user interfaces became

more and more graphic based, the need for a

mouse as a pointing device for input was

desired by users. Up until the late 90s the

Date

mechan

mouse a

rollers. One roller moved the pointer along

the x-axis, the other along the y-axis.

Crude prototypes of mo   pointing and

Subtitle
Subtitle entry accurate, formatted 18pt sans-serif   1 mark
Underlined right aligned to margin (not italic)   1 mark

Paragraph deleted   1 mark   eloped and

computer mouse types have evolved since

then to become faster and more responsive

and improve user experience. A lot of

improvements have been made in the field of

optical mouse technology.

There are several computer mouse types

Appropriate Image found   1 mark
Correct place, aligned top of text and to left margin   1 mark
Resized to fill half column with no distortion   1 mark
Text wrapped round image   1 mark

here are mouse types

diverse applications.

The optical mouse types were the first break

from conventional mechanical technology.

Now the mouse cou   oved more freely

and   was   **Both spelling errors corrected   1 mark**

limitations of materials. This technology used

a light emitting diode (LED) and sensors to

detect

unde

Body text format
12pt serif   1 mark
1.5 line spacing   1 mark
Fully justified   1 mark
All paragraphs consistent   1 mark
spacing

movements for operation and can provide

more ergonomic use, reducing the risk of

Strain Injury to the user.

Footer
Date left aligned to margin   1 mark
File name with full path aligned to right margin   1 mark

Automated file name and full path

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Candidate name, Centre number, candidate number

An improvement over the optical mouse was the laser mouse. This device used an infrared laser instead of an LED light. This improves the resolution and makes the mouse more responsive, improving navigation capabilities. Apart from these, there are several specialised and novel computer mouse types. There are mice designed for gamers. They have extra buttons on the sides to help gamers have better c

> Bullets applied to specified paragraphs   1 mark

atmosphere. In fact, one mouse takes it to the extreme by opening up as a clamshell and offering a fully-fledged joystick inside!

The development of the cordless mouse means you no longer have to wrestle with that irritating cord that always keeps getting in the way. The disadvantage is that you have to keep replacing the batteries. There are several different computer mouse types being developed by companies all the time. One of

Date

them is the tactile mouse, which allows the user to feel vibrations as the mouse is moved over certain areas, like over the boundary of a window frame.

You can find a computer mouse for just about any use. To figure out what kind of mouse would work best with your PC, you need to know your mouse options:

- Mechanical mouse: Houses a hard rubber ball that rolls as the mouse is moved. Sensors inside the mouse body detect the movement and translate it into information that the computer interprets.

- Optical mouse: Uses a sensor to

> **Page layout**
> A4 (mark from screenshot) landscape   1 mark
> Left and right margins 1.5cm
> Top and bottom margins 2cm
> (mark from screenshot)   1 mark
> No widows, orphans, or blank pages   1 mark
> Document complete with paragraphs intact   1 mark

types, the mouse relays a signal to a base station wired to the computer's mouse port. The cordless mouse requires power, which comes in the form of batteries.

- A mouse with many buttons: The extra buttons can be programmed to do specific things, such as navigate the Web or turn pages when you're reading a document. The typical programmable mouse has about five buttons.

- Stylus mouse: Another mouse mutation enjoyed by the artistic type is the stylus mouse, which looks like a pen and draws on a special pad.

- Cordless 3-D mouse: This kind of mouse can be pointed at the computer screen like a TV remote control.

Automated file name and full path

Candidate name, Centre number, candidate number

Compare these three gaming mice and their

features. One of them is bound to suit your

needs!

Make	Razer	Logitech	Alienware
Model	Imperator	Gaming Mouse G700	TactX Mouse
Features	6400dpi 4G Dual Sensor System - Rubberised contoured thumbgrip for added control - Ergonomic right handed design - Adjustable side buttons - On-board memory - Rapid acceleration - Seven programmable buttons - On-the-fly Sensitivity adjustment - Zero-acoustic Ultra slick mouse feet	200-5700dpi - Image processing: 12 megapixels / second - Thirteen programmable controls - Natural curves to fit the hand effortlessly - Dynamic coefficient of friction - Acceleration 30G max up to 4.19m/second	5000dpi laser Engine - Smooth scrolling and movements - Nine programmable buttons - Dual vertical scroll modes - Ergonomic design for long, comfortable play

***Table*:**

Table resized to fill page width	1 mark
Text inserted correctly in column 2	1 mark
Text inserted correctly in column 3	1 mark
Text inserted correctly in column 4	1 mark
Font matches body text (12pt serif)	1 mark
Left column text bold	1 mark
Top two rows only shaded light grey	1 mark
All gridlines printed. Outside lines only thick e.g. 3 point	1 mark

Date

Automated file name and full path

Report heading correct   1 mark

Two records added with no errors   2 marks

Item_Value field heading   1 mark
Field calculated   1 mark

Order for new mice

Make	Model	Features	Connection	Buttons	Programmable	Gaming	Cost_Price	Stock	Reorder	Item_Value
Acer	Ferrari		Wireless	2	No	No	€24.74	9	5	€123.70
Acer	Camaro Black		Wireless	2	No	No	€23.99	9	5	€119.95
Creative	Fatal1ty		Wired		Yes	Yes	€23.99	6	5	€119.95
Cyborg	R.A.T. 9		Wired	2	No	Yes	€62.35	9	5	€311.75
Eclipse	Touch mouse		Wired		No	No	€33.99	4	5	€169.95
Hippus	Hand shoe	stress free	Wired		No	No	€25.99	5	5	€129.95
Logitech	G700		Wireless	9	Yes	Yes	€89.99	3	5	€449.95
Logitech	Performance MX		Dual	4	No	No	€64.99	5	5	€324.95
Logitech	M105		Wired	2	No	No	€12.99	2	5	€64.95
Razer	Deathadder	Ergonomic	Wired		No	Yes	€26.99	3	5	€134.95
Razer	Taipan	Ambidextrous	Wired	9	Yes	Yes	€27.99	7	5	€139.95

Value of order   €2,090.00

Stock less than 10   1 mark

Sorted in ascending order of Make   1 mark

Order value calculated   1 mark
(mark from screenprint)
Label **Value of order**   1 mark

All fields except Notes   1 mark
All data and labels fully visible   1 mark
Fits one page wide   1 mark
Orientation is landscape   1 mark
Name, Centre number, candidate number on left below report   1 mark

Currency values all Euros 2dp   1 mark

Candidate name, Centre number and candidate number

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Mice for Gamers

Make: Logitech
Model: G700
Connection: Wireless
Retail Price: €107.99
Notes:

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Mice for Gamers

Make: Razer
Model: Naga Epic
Connection: Dual
Retail Price: €65.99
Notes: Features downloadable in-game addons for most MMO games.

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: The Old Republic
Connection: Wireless
Retail Price: €65.99
Notes: The Old Republic Gaming Mouse will execute battle plans faster with 17 buttons at your fingertips.

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: Imperator
Connection: Dual
Retail Price: €65.99
Notes: The Imperator is fitted with an ultra - precise 4G Dual Sensor system that makes use of both a laser and an optical sensor to enhance tracking precision.

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: Naga
Connection: Wireless
Retail Price: €65.99
Notes:

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: Orochi
Connection: Dual`
Retail Price: €41.99
Notes: Bluetooth connectivity to most laptop computers.

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: Mamba
Connection: Dual
Retail Price: €40.79
Notes: Unrivalled gaming grade wireless technology means the Razer mamba performs as well cordless as it does corded giving you utter freedom of motion whilst you win gloriously in games.

Candidate name, Centre number, candidate number

Mice for Gamers

Make: Razer
Model: Ouroboros
Connection: Wireless
Retail Price: €31.19
Notes: Interchangeable side panels make this suitable for left or right handed users. Adjustable size to suit different hands make for minimised fatigue and maximised comfort.

Candidate name, Centre number, candidate number

Selection Wireless or Dual	1 mark
and gaming	1 mark
Retail Price calculated	1 mark
Sorted on Retail Price descending order	1 mark
Two labels side by side layout in portrait	1 mark

Labels have heading in larger font	1 mark
Five specified field contents	1 mark
Appropriate field labels added	1 mark
Candidate details at bottom of label	1 mark

Slide 1

Mice for gamers

Presentation by: Name

Connection
- Wired
- Wireless
- Dual

Slide 1 title and subtitle layout   1 mark
Subtitle added   1 mark

Sensors
- Infrared
- Laser

Programmable Buttons
- Record game specific macros
- Rapid response in games

Slides created from source file   1 mark
as titles and bullets
Bullets consistent across slides   1 mark

Audience notes 6 per page   1 mark

Features
- Adaptable for left or right hand use
- Use on any surface
- On-the-fly switching

Slide master
Two thick vertical lines drawn   1 mark
Name, Centre no, candidate no. bottom left   1 mark
Slide numbers bottom right   1 mark
No overlap master slide items or slide items   1 mark

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Candidate name, Centre number, candidate number

Step 1 – Contact details stored in address book

Contacts added   1 mark

Step 2 – Email group
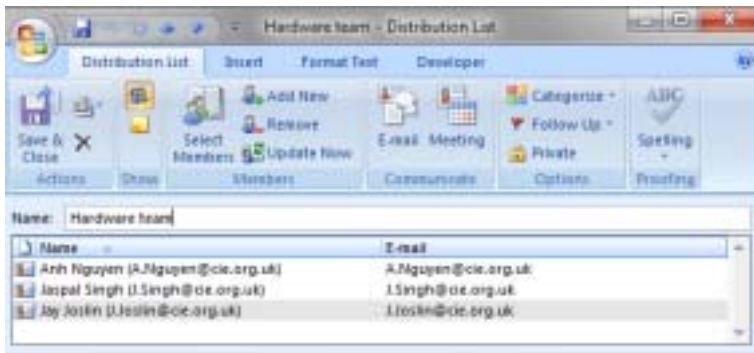
Group created   1 mark

Candidate name, Centre number, candidate number

Steps 4 and 5 - Page size and layout evidence
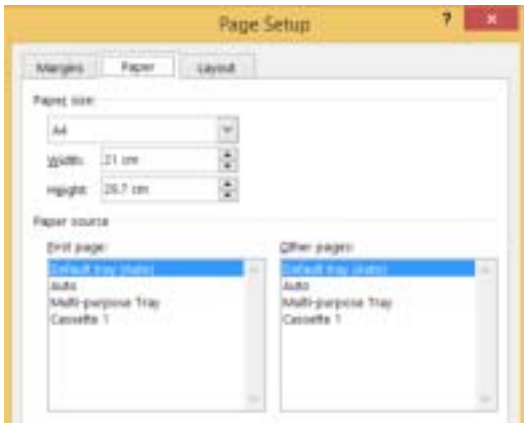
Paper size A4
Mark from screenshot
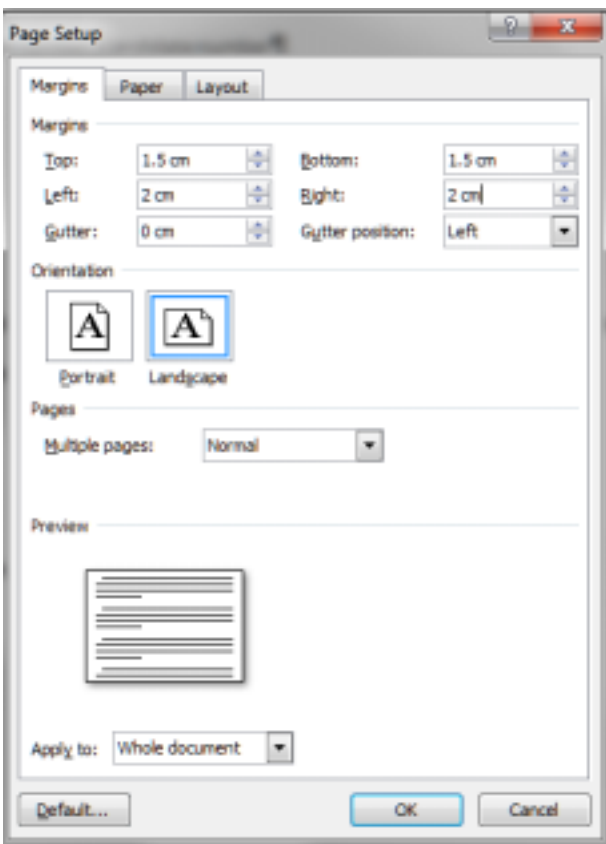
Margins setting and orientation evidence
Mark from screenshot

Candidate name, Centre number, candidate number

Step 28 – Database field structure

| Fields as given with correct data types	1 mark
Min_Stock level field not imported	1 mark
Cost_Price field number / Currency	1 mark
Programmable and *Gaming* as Boolean	1 mark
Boolean fields displayed as	
Yes/No or checkbox in report	1 mark
Notes text or memo (long text)	1 mark

Step 32 – Automatic calculation of the Value of order

Field calculation evidence

Step 42 – Transitions and animations evidence

Transitions evidence	1 mark
Animations evidence	1 mark
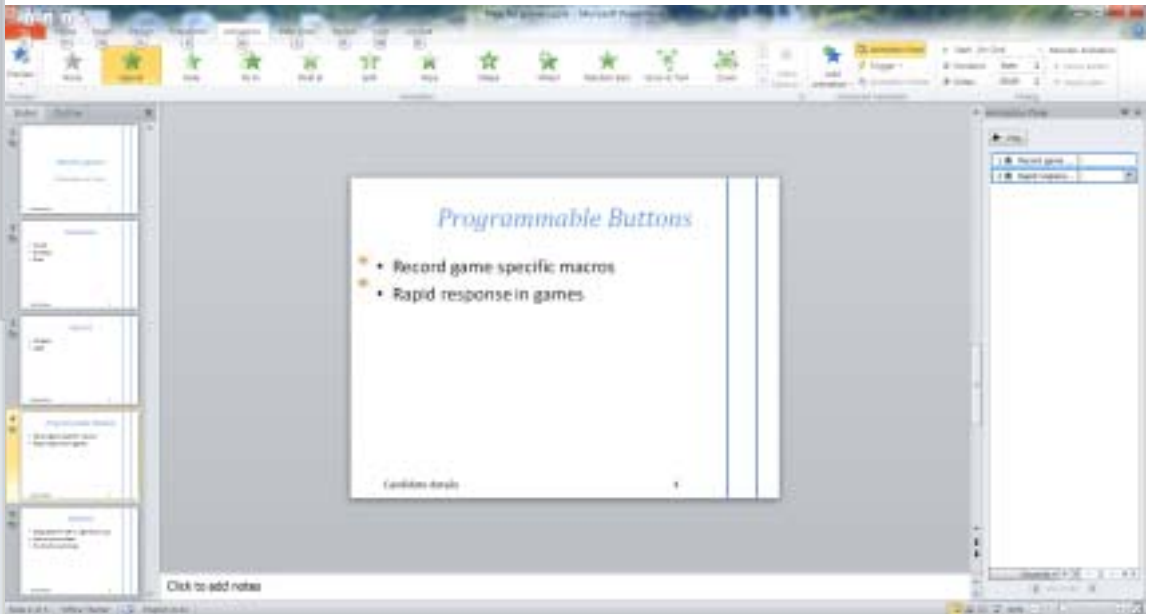
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Step 46 – Email message

Message to design.h@cie.org.uk	1 mark
Copied to group	1 mark
Subject correct	1 mark
Attached file	1 mark
Message content	1 mark