

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

**0417 INFORMATION AND COMMUNICATION
TECHNOLOGY**

0417/22

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 May/June 2015 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

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<examination date>

Date left aligned, Centre and Candidate numbers right aligned 1 mark

Centre number, Candidate number

GAME CONSOLES 2013

Title

Data entry 100% accurate, centre aligned 1 mark
 28pt, sans-serif, bold 1 mark

Subtitle

Data entry 100% accurate, right aligned 1 mark
 16pt sans-serif, italic (no other emphasis) 1 mark

Draft report by: Candidate Name

History

Video Game Consoles

Video game consoles have captivated the hearts of game enthusiasts since their introduction in the 1970s. The first home video game console which could be **connected** to a television set was released in 1972. The golden age of video gaming arrived in the 1980s when the popular arcade hit Space Invaders was released.

3 columns, 1cm column spacing from History 1 mark

The home entertainment systems of today are cutting edge machines that have super speeds and amazing interaction with other media and increased connectivity.

Body text

12pt, serif font 1 mark
 Single line spacing, fully justified 1 mark

2 spellings corrected 1 mark

Video game consoles are a popular form of home entertainment. They connect to a TV screen which displays the graphics and plays the sounds of the game. A game controller is used to provide input and allows the player to interact with the video game, typically to control an object or character. Modern systems use sophisticated controllers with a variety of buttons and special features.

Handheld Consoles

Gaming technology has come a long way since those early days and **continues** to develop at a relentless pace. There are now video games for all demographics and audiences, including young children.



Handheld video game consoles are portable electronic devices with a built-in screen, game controls, and a battery. They can be used virtually anywhere. With advancements in technology, handheld game consoles are no longer limited to simply playing games. They now have the ability to take photos and videos, make calls, play music and watch movies on the go. The growth in popularity of tablets and smartphones mean more people are playing video games than ever before.

Subheadings

Sans-serif, 14pt, centre, italic, underline 1 mark

Image

Correct image replaces text 1 mark
 Image cropped to remove stars 1 mark
 Text wrapped, right and top aligned 1 mark
 Resized 4cm wide, aspect ratio maintained 1 mark

Bullets

Numbers changed to bullets 1 mark
 Bullets aligned left margin 1 mark

The core systems have:

- User control interface
- CPU
- RAM
- Software kernel
- Storage medium for games
- Video output
- Audio output
- Power supply

Video Games

There is a huge variety of games available. The majority of video games are designed to

<filename and path>

Footer

Auto filename and path left aligned and Auto page numbers right aligned 1 mark

<examination date>

entertain people but they can also educate, inform, persuade and stimulate the user. Games are categorised into commonly used video game genres which are mainly based on their gameplay, interaction and category.

Aggressive competition between manufacturers has resulted in the superior features we have today. Today's games are increasingly realistic and technologically advanced. They feature richly textured, full-colour graphics, amazing sound and complex interaction between player

content in video games so consumers, especially parents, can make informed choices. Rating categories suggest age appropriateness and are as follows:

<i>Rating Categories</i>		
RATING	MEANING	AGE
EC	Early Childhood	Young children
E10	Everyone	All ages
E10+	Everyone 10+	10 and over
T	Teen	13 and over
M	Mature	17 and over
AO	Adults Only	18 and over
RP	Rating Pending	Not assigned

Centre number, Candidate number
player games to the console environment and allowed users to play with others anywhere in the world.

Accessories

There are a wide range of accessories available which are designed to enhance the gaming experience and make the action more enjoyable and realistic. From gaming chairs with inbuilt sound and vibrating capabilities, to gaming headsets and steering wheel controllers for use with driving games, there are numerous accessories to help people get the most out of their gaming session.

Table

New table column in correct position	1 mark
Data entry 100% accurate	1 mark
Top row cells merged, heading centred	1 mark
Top row bold and italic only	1 mark
Second row bold, centred only	1 mark
Font matches body text, text within column	1 mark
Text on one line, outline border displayed	1 mark

Online Gaming

Online gaming is one of the most popular entertainment activities on the World Wide Web. With the evolution of advanced Internet technologies, and cheaper and more accessible broadband connectivity, the number of younger web users has increased, resulting in a demand for online games across the continents. Many

Global Sales

Video games have never been more popular. The industry is worth around \$80 billion worldwide, which matches the global film industry. The biggest titles comfortably out earn blockbuster movies. However the sale of consoles and video games has seen a steady recent years and retail sales are down. The gaming world is changing. more widely used for gaming, more games are available for download and consoles have more functions than just gaming.

movie, the difference being that the gamer controls the action!

Some video games have been criticised for glorifying violence, cruelty, and crime and exposing children to these elements. There are concerns that children who play violent video games may have a tendency to behave more aggressively. This has led to a voluntary rating system being adopted by the industry.

3pt to 4pt outside border applied to paragraph
Light grey shading

1 mark
1 mark

earn advertising revenues.

The launch of World of Warcraft prompted console giants such as Sony, Microsoft and Nintendo to produce advanced gaming consoles and gaming software that allowed users to play against one another online. This brought multi-

Dedicated games consoles are expensive and non-portable so it is not surprising that industry growth is coming from other sources. Gaming on tablets and smartphones is growing rapidly,

The Entertainment Software Rating Board (ESRB) ratings provide information about the

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as are games played through web browsers and social-networking sites. Dedicated gamers believe the smartphone or tablet screen cannot match the experience of gaming on a high-powered, dedicated device in front of a large television screen. Time will tell whether the traditional games console can survive.

and functions greatly enhance the functionality and everyday use of the game console. With these developments they are set to continue as an important source of leisure and entertainment, education and social interaction for many years to come.

Developments

The development of new consoles usually occurs in five to six year cycles. Some believe that the latest eighth generation machines may be the last of the home video game consoles. Could it be curtains for consoles?

Paragraph moved to correct position 1 mark

We live in a world where social networking and interactive gameplay are now mainstream activities. Video gaming takes place between gamers all across the world and there is a move towards playing console-quality games through a web browser or a cloud-based gaming service. Some consider this gameplay experience to be comparable or even better than playing the game on a console or on a high-powered PC. These games can be played on any Internet-enabled device, even tablets and smartphones.

Page layout

- Consistent spacing with 12pt line space after each paragraph, subheading, list and table 1 mark
- No widows or orphans, no split lists or tables, no blank pages 1 mark
- Document complete/paragraphs intact 1 mark

Modern video game consoles do so much more than play games. Manufacturers are keen to promote their consoles as complete home entertainment systems which stream films, play live TV, place video calls and browse the internet. These additional multimedia features

<filename and path>

Title
Data entry 100% accurate 1 mark

Landscape, fully visible, 1 page wide 1 mark
North_America and *Global* displayed to 2 decimal places 1 mark
 Candidate name, Centre number and candidate number top right of report, no page number 1 mark

PlayStation sporting game sales

Chart_position	Game	Publisher	Platform	Genre	North_America	Global	Market_share
27	Gran Turismo 3: A-Spec	Sony Computer Entertainment	PS2	Racing	6.85	14.98	46%
42	Gran Turismo 4	Sony Computer Entertainment	PS2	Racing	3.01	11.66	26%
47	Gran Turismo	Sony Computer Entertainment	PS	Racing	4.02	10.95	37%
49	Gran Turismo 5	Sony Computer Entertainment	PS3	Racing	2.74	10.7	26%
60	Gran Turismo 2	Sony Computer Entertainment	PS	Racing			41%
86	Need for Speed Underground	Electronic Arts	PS2	Racing			45%
97	Need for Speed Underground 2	Electronic Arts	PS2	Racing			39%
109	FIFA Soccer 12		PS3	Sports			12%
156	Madden NFL 2004		PS2	Sports			81%
174	Tony Hawk's Pro Skater		PS	Sports			68%
180	FIFA Soccer 11		PS3	Sports	0.58	4.98	12%
184	Madden NFL 06		PS2	Sports	3.98	4.91	81%
191	Crash Team Racing	Sony Computer Entertainment	PS	Racing	2.57	4.79	54%
194	The Simpsons: Hit & Run	Vivendi Games	PS2	Racing	1.73	4.70	37%
196	Tony Hawk's Pro Skater 2	Activision	PS	Sports	3.05	4.68	65%
207	Madden NFL 05	Electronic Arts	PS2	Sports	4.18	4.53	92%
210	Madden NFL 07	Electronic Arts	PS2	Sports	3.63	4.49	81%
216	Tony Hawk's Pro Skater 3	Activision	PS2	Sports	2.66	4.41	60%
217	Winning Eleven: Pro Evolution Soccer 2007	Konami Digital Entertainment	PS2	Sports	0.10	4.39	2%
219	Need for Speed: Most Wanted	Electronic Arts	PS2	Racing	2.03	4.37	46%
222	FIFA Soccer 14	Electronic Arts	PS3	Sports	0.46	4.31	11%
228	FIFA Soccer 06	Electronic Arts	PS2	Sports	0.78	4.21	19%
237	Madden NFL 2003			Sports	3.36	4.14	81%
238	Gran Turismo 5 Prologue			Racing	1.25	4.14	30%
242	FIFA 07 Soccer			Sports	0.71	4.11	17%
250	World Soccer Winning Eleven 9			Sports	0.12	4.06	3%
261	Tony Hawk's Underground	Activision	PS2	Sports	2.29	3.90	59%
266	World Soccer Winning Eleven 8 International	Konami Digital Entertainment	PS2	Sports	0.16	3.85	4%
273	MotorStorm	Sony Computer Entertainment	PS3	Racing	1.50	3.79	40%
283	FIFA Soccer 2005	Electronic Arts	PS2	Sports	0.58	3.70	16%
288	Tony Hawk's Pro Skater 4	Activision	PS2	Sports	2.13	3.67	58%
295	Pro Evolution Soccer 2008	Konami Digital Entertainment	PS2	Sports	0.05	3.63	1%
300	The Simpsons: Road Rage	Electronic Arts	PS2	Racing	2.02	3.61	56%

Name, Centre number, Candidate number

Search
Platform = PS, PS2, PS3 1 mark
Genre = Sports or Racing 1 mark
Chart_position is <=300 1 mark

Calculated field
 Heading 100% accurate 1 mark
 Calculated field 1 mark
 Formatted % and to 0 decimal places 1 mark

Changed from 566 to 191 1 mark

2 records added 2 marks
 Sorted by *Chart_position* ascending 1 mark
 Specified fields, in correct order 1 mark

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Title

Data entry 100% accurate 1 mark

Search

Game is *Mario*

Publisher is Nintendo

Global is >=10

1 mark

1 mark

1 mark

Highest selling Mario titles

Game	Release_year	Platform	Publisher	Global
New Super Mario Bros.	2006	DS	Nintendo	29.28
Mario Kart DS	2005	DS	Nintendo	22.73
Super Mario 64	2004	DS	Nintendo	10.00
Super Mario Land	1989	GB	Nintendo	18.14
Super Mario Land 2: 6 Golden Coins	1992	GB	Nintendo	11.18
Super Mario 64	1996	N64	Nintendo	11.89
Super Mario Bros.	1985	NES	Nintendo	40.24
Super Mario Bros. 3	1988	NES	Nintendo	17.28
Super Mario World	1990	SNES	Nintendo	20.61
Super Mario All-Stars	1993	SNES	Nintendo	10.55
Mario Kart Wii	2008	Wii	Nintendo	34.12
New Super Mario Bros. Wii	2009	Wii	Nintendo	27.06
Super Mario Galaxy	2007	Wii	Nintendo	10.97

Name, Centre number, candidate number

Total sales (millions)

264

Sort by *Platform* ascending then *Global* descending

1 mark

Specified fields any order

1 mark

Portrait, 1 page wide, candidate name, Centre number and candidate number at bottom of report

1 mark

Calculated total of *Global*

1 mark

Correct position and

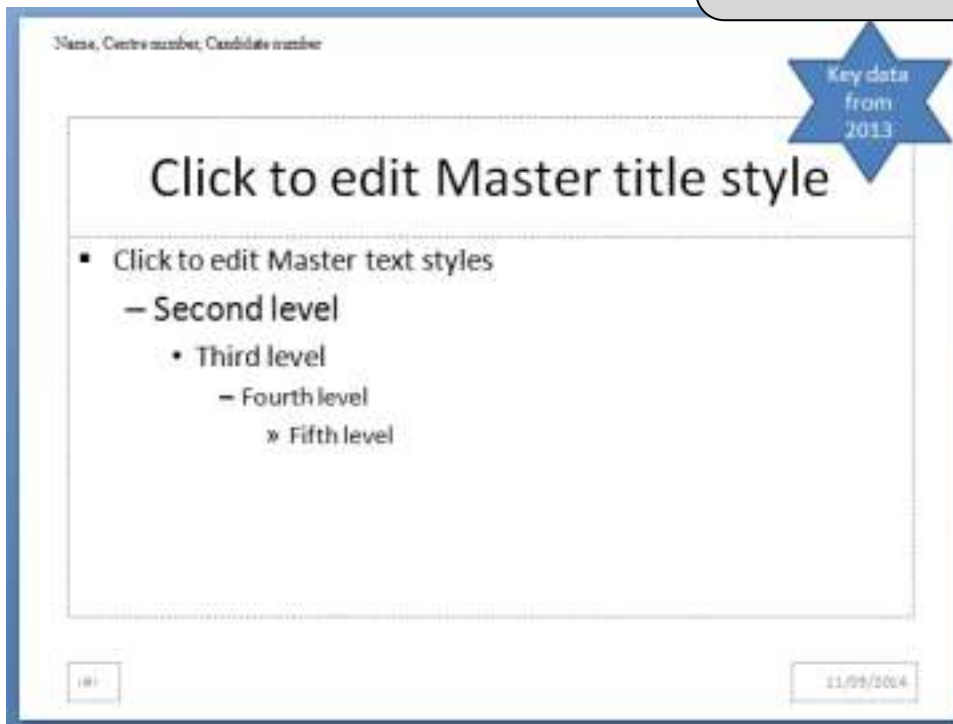
formatted to 0 decimal places

1 mark

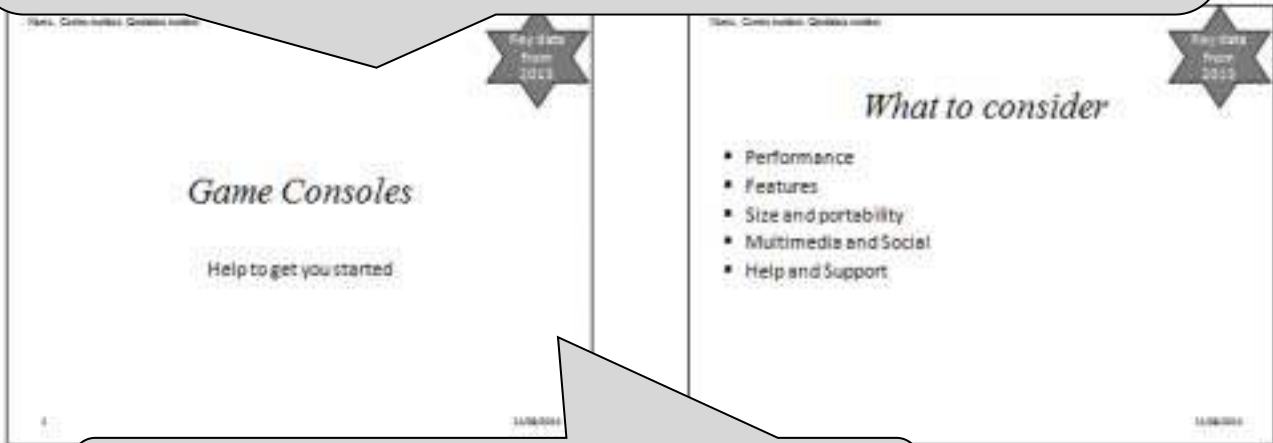
Label to left is 100% accurate

1 mark

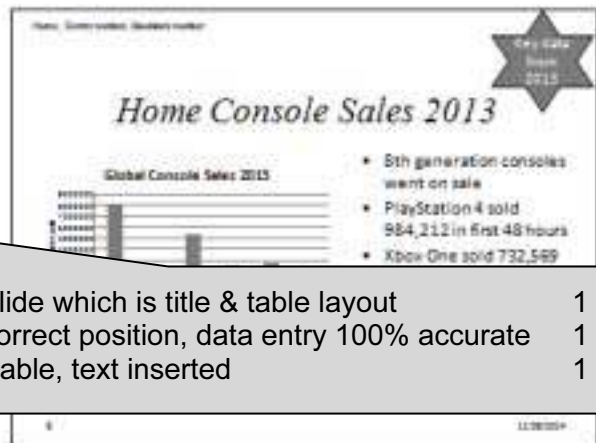
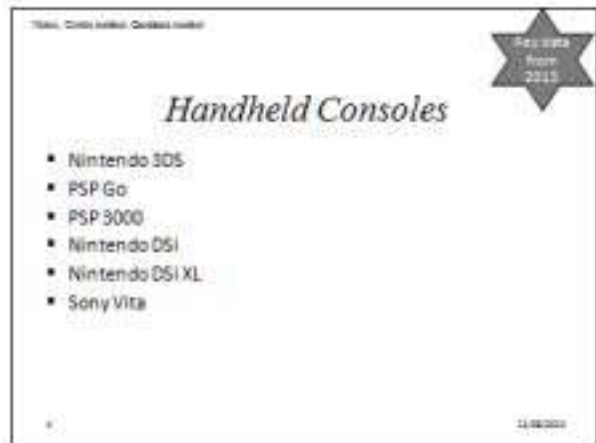
Step 41 Master slide screenshot



Master slide
 Star shape, top right aligned 1 mark
 Text in shape – data entry 100% accurate 1 mark
 Candidate name, Centre Number, candidate Number, 12pt, serif, top left aligned 1 mark
 Auto slide number bottom left aligned, auto date bottom right aligned 1 mark
 1st level bullets 24pt, square shape e.g. ■ 1 mark
 All items created and appear on all slides with no overlap 1 mark




Import slides correctly 1 mark
Slide 1 layout changed to centred title & subtitle 1 mark
Slide 2 deleted (*Buying Guide*) 1 mark



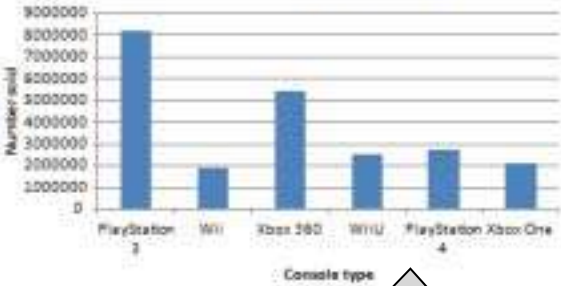
Slide 5 New slide which is title & table layout 1 mark
 Title correct position, data entry 100% accurate 1 mark
 5×11 table, text inserted 1 mark

Name, Centre number, Candidate number



Home Console Sales 2013

Global Console Sales 2013



Console type	Number sold
PlayStation 3	~8,000,000
Wii	~2,000,000
Xbox 360	~5,500,000
Wii U	~2,500,000
PlayStation 4	~2,800,000
Xbox One	~2,000,000

- 8th generation consoles went on sale
- PlayStation 4 sold 984,212 in first 48 hours
- Xbox One sold 732,569 in first 48 hours
- PlayStation 4 outsold the Xbox One by a third

Vertical bar chart created from correct data	1 mark
Slide 6, chart positioned to left of bullets	1 mark
Chart titles correct, all labels displayed in full, no legend	1 mark

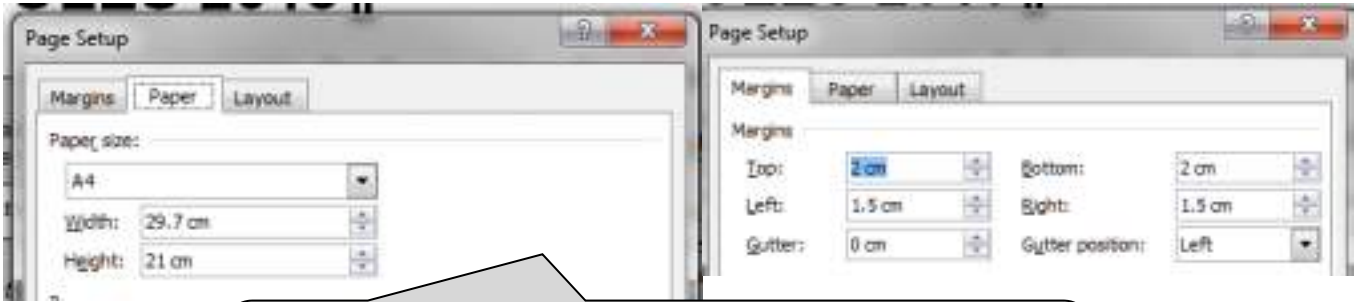
Print
 Slides printed as hand outs six to a page and single slide print out of *Home Console Sales 2013* slide 1 mark

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EVIDENCE DOCUMENT

Step 4 Paper size **screenshot** evidence

Step 5 Margin **screenshot** evidence



Screenshots of settings for Page layout of report
 A4 and Landscape 1 mark
 Margins top and bottom 2cm, left and right 1.5cm 1 mark
 Accept top and bottom 0.79”, left and right 0.59”

Step 31 Database field structure screenshot

Field Name	Data Type
Chart_position	Number
Game	Text
Platform	Text
Release_year	Number
Genre	Text
Publisher	Text
North_America	Number
Europe	Number
Japan	Number
Rest_of_World	Number
Global	Number

Database structure
 Correct field names and data types as given 1 mark

Step 51 contact/address book screenshot evidence



Address Book/Contacts
 Contact entry Sharif Thabo, s.thabo@cie.org.uk 1 mark

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Step 54 Place a screenshot of the email showing attachment here:

The screenshot shows an email composition window. The 'To' field contains 'design.h@cie.org.uk'. The 'CC' field contains 'Sharif Thabo'. The subject line is 'Game Console Report'. Below the subject, there are fields for 'Name', 'Centre Number', and 'Candidate Number'. The main body of the email contains the text: 'The amended report is attached for your approval.' At the bottom, there is an attachment named 'Games Report.odt' with 'Remove' and 'Download' options. A rich text editor toolbar is visible at the very bottom, including a 'Send' button and icons for text formatting and insertion.

A callout box on the right side of the screenshot lists the following marking criteria:

- To: design.h@cie.org.uk 1 mark
- cc: s.thabo@cie.org.uk 1 mark
- Subject: *Game Console Report* 1 mark
- Only document attached, appropriate file extension (not original or rtf) 1 mark
- Message text correct 1 mark