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.

<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 t
of game enthusiasts since their introduction in
the 1970s. The first home video game console
which could be connected to a television set w
released in 1972. The golden age of vi
gaming arrived in t   980s when the po
arcade hit Space   s was released

3 columns, 1cm column spacing from *History*   1 mark

2 spellings corrected   1 mark

The home entertainment systems of today are
cutting edge machines that have super
speeds and amazing interaction
really

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

with other media and increased connectivity.

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.

The core
systems ha

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

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 vi   me consoles are portable
electroni   ith a built-in screen, game
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
stantly share with friends online, make
calls, play music and watch movies on
b. The growth in popularity of tablets and
phones mean more people are playing
e games than ever before.

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

- 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

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

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

<filename and path>

1

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

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

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.

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

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

Rating Categories		
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

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

3pt to 4pt outside border applied to paragraph	1 mark
Light grey shading	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-

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.

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.

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,

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

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

Name, Centre number, Candidate number

PlayStation sporting game sales

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

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

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	Activision	PS	Sports	3.05	4.68	65%
207	Madd	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				3.36	4.14	81%
238	Gran Turismo 5 Prologue				1.25	4.14	30%
242	FIFA 07 Soccer				0.71	4.11	17%
250	World Soccer Winning Eleven 9				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%

Title
Data entry 100% accurate   1 mark

Search
Game is *Mario*   1 mark
Publisher is Nintendo   1 mark
*Global* is >=10   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**
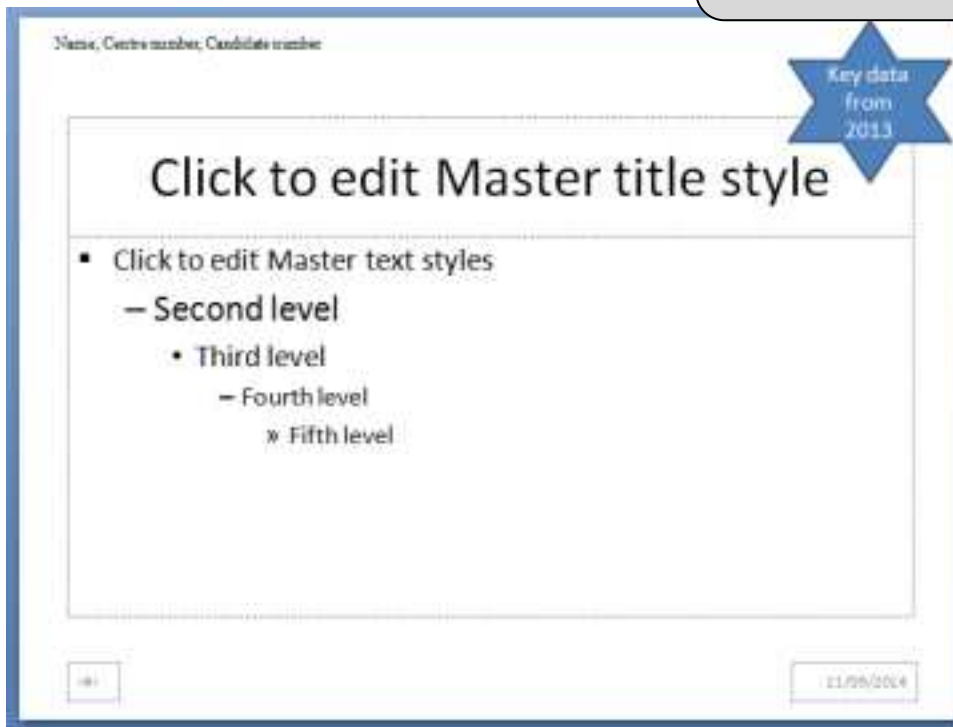
Master slide

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
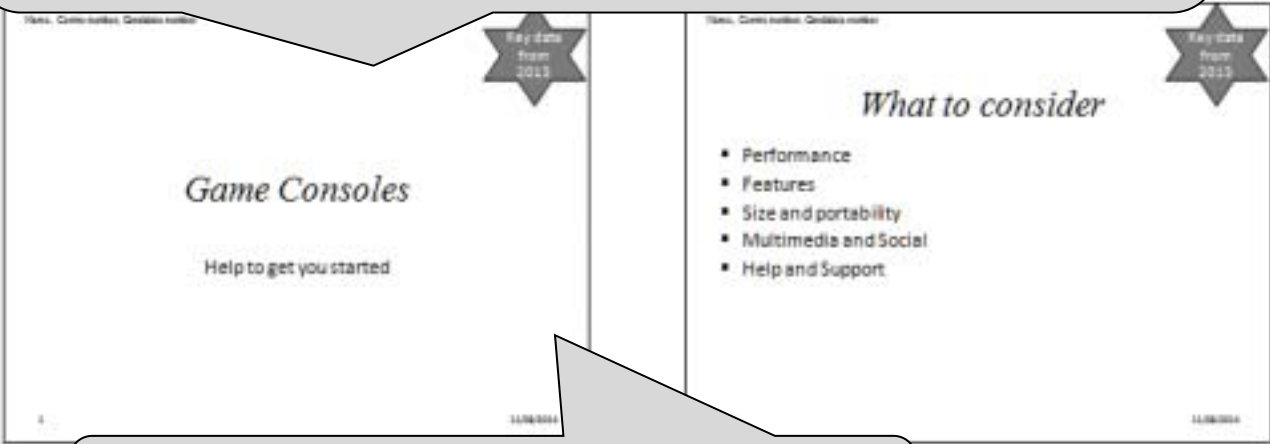
Import slides correctly	1 mark
Slide 1 layout changed to centred title & subtitle	1 mark
Slide 2 deleted (*Buying Guide*)	1 mark
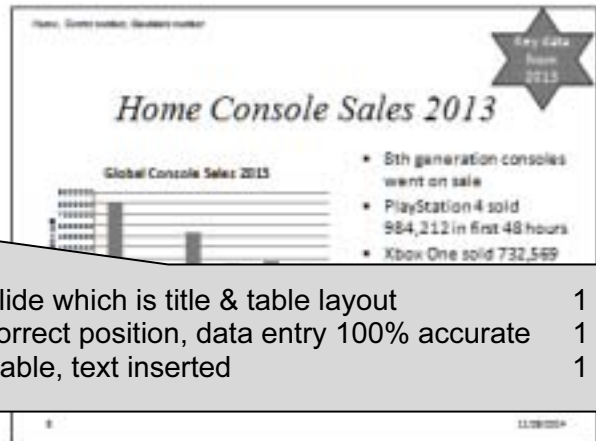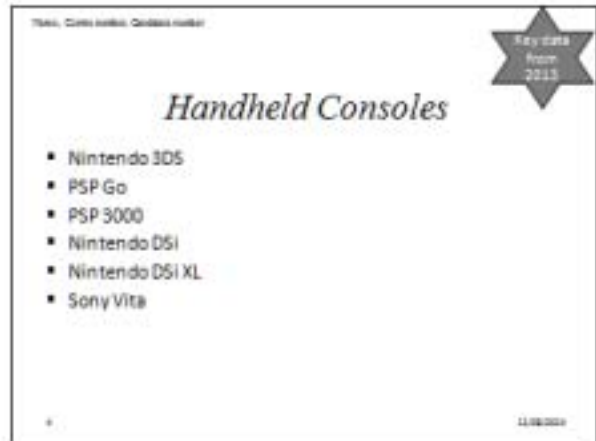
Slide 5 New slide which is title & table layout	1 mark
Title correct position, data entry 100% accurate	1 mark
5×11 table, text inserted	1 mark

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Name, Centre number, Candidate number

Key data from 2013
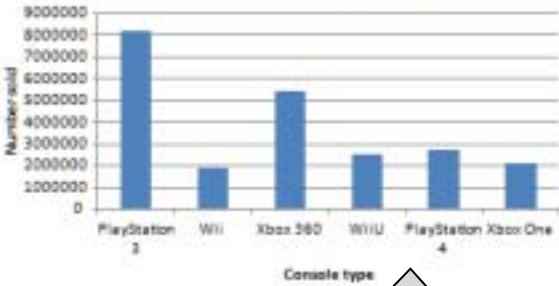
Home Console Sales 2013

Global Console Sales 2013

- 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
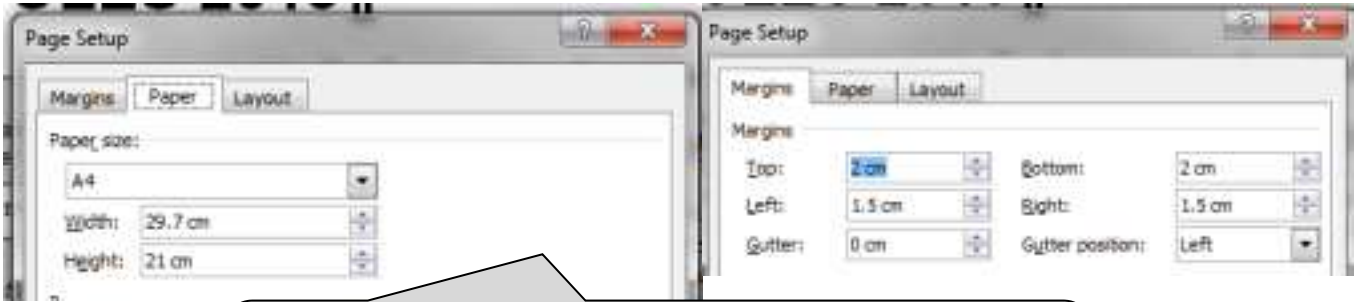
EVIDENCE DOCUMENT

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

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

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

To   design.h@cie.org.uk

CC   Sharif Thabo |

Game Console Report

Name
Centre Number
Candidate Number

The amended report is attached for your approval.

Games Report.odt   Remove   Download ⌄

Send

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