

Mark Scheme (Results)

Summer 2015

Pearson Edexcel GCSE in ICT (5IT03) Paper 01 Exploring Digital Design



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General Marking Guidance

• All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

• Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

• Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

• There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

• All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

• Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

• When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.

• Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Do not accept	Additional Guidance	Mar k
1	Monthly Gym Progress Report Membership Information Here Logo			
	Monthly Gym Progress Report Staffing Costs Information Here Logo			
	Monthly Gym Progress Report Equipment Costs Information Here Laga			
1(a)	Award one mark each for inclusion in storyboard of: • `Monthly Gym Progress Report' at top of slide • Logo in same place as other slides		For all items allow any recognisa ble spelling	
	(bottom right) • Font: Arial 3 x1		Accept title and logo with or without border	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (b) (i)	 Any three improvements from: 1. Use less text 2. 'May' and '2015' on same line / Sensible line break in 'Sales Figures (May 2015)' 3. Format text using bullet points 4. Present sales figures as a graph or table 5. Present information and sales figures consistently (both with border / both without) 6. Add sub-heading (to text) e.g. merchandise sales 7. Spread text out / better use of white space 			3
L	5/1		1	-

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (b) (ii)	 Any three ways from: 1. Create / use a template / master slide 2. Use same font type / styles / sizes throughout 3. Use consistent navigation features 4. Use consistent transitions 5. Logo on all slides 6. Use same colour scheme throughout 		Looking for answers relating to internal consistency within a presentation 'Use house style' gains one mark max if no other feature of house style credited	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (biii)	D			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (i)	Any two reasons from: (Clip-art / cartoon) image is not formal enough / would not suit and adult audience (for a business presentation) (1) Cartoon image / not a real gym user / does not show a specific item (1) (Cartoon Image) does not give a positive representation of the gym (1)			
	2x1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (ii)	D			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (iii)	С			1

Total for Question 1 – 14 marks

Question	Answer	Do not accept	Additional	Mark
Number			Guidance	
2 (a)	Any four improvements from:	Responses		
		relating to		
	 Making it easier to follow 	using/adding		
	instructions (make	colour		
	numbered / bulleted list)			
	Explanation text bigger /			
	easier to read			
	Add additional function			
	buttons (e.g. `menu',			
	`mute / toggle audio',			
	accessibility function)			
	4. Place a border around text			
	/ image			
	5. Use video / animated			
	image / more than one			
	image of exercise			
	6. Add name of exercise			
	7. Add icons to control			
	buttons			
	8. Have app use full screen /			
	hide the notifications bar			
	9. Make logo smaller (to			
	allow more space for text)			
	10.Centre title			
	4x1			4

Question Number	Answer		Do not accept	Additional Guidance	Mark
2 (b) (i)	Any one multimedia feature from: 1. Video / video player 2. Text 3. Logo / image		`sound'		
		1x1			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (b) (ii)	Any one interactive feature from: 1. Button (Home / play / pause / stop) 2. Video controls 3. Link / hyperlink (to	`website' on its own Volume control		
	website)			1

Question Number	Answer		Do not accept	Additional Guidance	Mark
2 (c) (i)	of an audio ty for a suitable within the ap			Award mark for a suitable explanation of example use if `type' not	
	Audio Type	Example use		identified	
	Sound effect (1)	 Click / feedback sound on navigation buttons (1) Transition sounds between screens (1) 			
	Sound track (1)	 Background music to training videos (1) Beat or similar to give rhythm / timing of exercise (1) 			
	Voice-over / Narration (1)	 Trainer instructions on training videos (1) Read the text on a screen (1) Accessibility (e.g. for a 			
		blind user) (1)			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (c) (ii)	 Any two reasons for using an audio codec: 1. Ensure audio file is in a common format / is supported by a range of devices 2. Can specify target file size of audio file 3. Can specify / alter sound quality (to suit needs) 4. Ensure there are no format licensing problems 5. File can be downloaded more quickly 	Reduce overall file size of app (in question)		
	2x1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (d) (i)	Any one audio type from: 3gp aac au aud flac mp3 m4a m4p oga ogg Wav wv wma webm 1x1		Accept appropriate proprietary names (e.g. Real Audio) Credit any appropriate additional audio file format	1

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (d) (ii)	Any one video type from: 3gp 3g2 avi asf bin divx /.dvx f4v flv mpg / mpeg / mp4 m2v m4v mov swf wmv ogg ogv webm nsv vob mkv qt		Accept appropriate proprietary names (e.g. Quicktime) Credit any appropriate additional Video file format	1
	1/1	1	1	-

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (e)	 Explanation such as: 1. Makes it more compatible (1) so can be used with a wider range of devices / operating systems (1) 2. No need to install additional software (1) making it more accessible / less complicated for users (1) 		Award one mark for 'can be used on more devices' (or similar) Allow 'readable' for compatible.	
	1+1			2

Total for Question 2 – 14 marks

Question Number	Answer		Do not accept	Additional Guidance	Mark
3 (a)	Entity relationship diagram			Accept 'ERD' or 'ER model' Credit responses that show a	
		1x1		clear understanding of `relationships'	1

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b)	 Any three additions from: 1. Drop down list for class code 2. Option to select date / day / time they wish to book for 3. User instructions / example input text 4. Accessibility features (e.g. adjustable fonts, 'read out text' button, contrast) 5. Add screen title / product name 6. Add a link / navigation button to main menu / other parts of the database 7. 'Clear form' button 		Drop down list must specify appropriate use e.g. class code / session time. Drop down list can relate to an appropriate suggested addition. (e.g. time)	3

Question	Answer	Do not accept	Additional	Mark
Number			Guidance	
3 (c)				
	 Award one mark for inclusion of each of the following: Form title (Trainer Information) `Name of trainer' - Data entry field `Class taught' - Data entry field Gym logo Award one mark for inclusion of a suitable feature that makes the 		If any component is missing allow follow through for appropriate sizing of elements for remaining elements `ease of use' features such	
	 a suitable feature that makes the form easier to use such as: Drop down menu Radio buttons (e.g. class names) User instructions Award one `design' mark for		as drop downs and radio buttons must only be awarded if applied to elements	
	appropriate sizing and positioning of elements 6x1		identified in the specification.	
				6

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (d)	Any three column headings from: 1. Expected outcome 2. Actual outcome 3. Pass / fail 4. Intended action / action taken			
	5. Retest result 3x1			3

Question Number	Answer		Do not accept	Additional Guidance	Mark
3 (e) (i/ii)					
	Characteristic	Explanation			
	Intended user (employee)	 They will be using the system (1) Check it is suitable for their skills / education level (1) Will be able to identify if it does the things their job requires (1) Be able to compare it to the current system (1) 			
	High ICT skills	 Check the more advanced features of the program (1) Check product is designed in an intuitive way / functions in similar ways to other products (1) More likely to probe for weaknesses / try to find unofficial shortcuts or functions 			
	Low ICT skills	 Check ease of use (1) Check robustness of system (1) as low skilled user is more likely to do something unexpected (1) 			
	Has a disability	 Check accessibility features work correctly (1) Ensure products complies with DDA / accessibility standards (1) Ensure all users can complete the tasks the system is designed for (1) 1 + 1x2 			3

Total for Question 3 – 16 marks

Question Number	Answer		Do not accept	Additional Guidance	Mark
4 (a)	Award one mark for one suitable reason for each property.				
	File property	Reason for being suitable			
	File type .gif File size. 150KB	 Common file type (1) Compatible with most browsers / software (1) Supports animation (1) Will load quickly (1) Should be easily accessible on a range of devices / connections (1) 			
		2x1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (b)	Any two possible ways of testing accessibility from: Test on different: 1. devices 2. screen sizes 3. operating systems 4. internet connections (3G / 4G / broadband) 5. filtering systems (e.g. Net Nanny, Google safe search etc) 6. systems with different accessibility settings 2x1	Test on different browsers		2

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (c)	 Any two disadvantages of using a codec to compress audio from: 1. May affect sound quality 2. May make it incompatible with some platforms / browsers 3. User may need to install additional software (to play the sound) 			2
	2x1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (d) (i)	An explanation of why content may get repurposed such as: Create consistency (between products / adverts) (1) makes the gym look more professional / enhance brand recognition (1) To avoid compatibility issues (1) as asset will have already have been tested (1) May avoid copyright issues (1) as permission for use of an asset may have already been obtained (1) May reduce (overall) production costs (1) as paid for content is used for multiple products / less production / designer time needed (1) Subsequent products can be produced more quickly (1) as time needed to test / create / seek permission to use assets is reduced (1)	'looks more professional' on its own		
	1+1			2

Question Number	Answer		Do not	Additional Guidance	Mark
4 (d) (ii)	criteria (max 2) a suitable reason (n inappropriate design and one mark for each max 2)	accept	Guidance	
	Design criteria File type/format Timings / Timing of poster 2	 Reason May not be compatible with standard target device platform / O.S. May need to install additional software to run this file Potential security flaws in swf format Inconsistent may give the presentation a `disjointed' feel Poster 2 may not be displayed long enough to read 			
	Navigation	 the poster. The advert should be a 'rolling' presentation The advert is designed for continuous play Would require user input 			4

Question Number	Indicative Content
* 4(e) QWC	Candidate provides discussion of how the designer could involve others, throughout the design and development process to ensure that products are fit for purpose.
	 Discussion could include: How the system life cycle phases (Investigation, Analysis, Design, Implementation, Testing and Evaluation) influence the product: Investigation: Carry out research to establish the likes, dislikes and expectations of users Analysis: Meetings / discussions with client early in design process to establish success criteria, objectives, design principles etc Design: Use of early design documentation, such as moodboards and storyboards, to establish design parameters Implementation: Development of multiple different solutions / drafts at early stages of development to allow users to compare solutions and provide feedback on their effectiveness. Testing: Selection of suitable test users and their use at different stages of the design and development process. Evaluation: Communication and review by client and designer refine product as needed

Level	Mark	Descriptor
2010.	0	No rewardable material.
1	1-2	The response may focus on only one phase of the design or development process.
		Using a number of simple statements , the response includes techniques / processes that are mostly suitable for the phase(s) on which the response focuses.
		The response uses everyday language and the response lacks clarity and organisation. Spelling punctuation and the rules of grammar are used with limited accuracy.
2	3-4	The response considers different phases of the design and development process
		The response includes suitable techniques / processes for the phases considered.
		The candidate uses some specialist terms and the response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
3	5-6	The response links different phases of the design and development process (e.g. testing phase checks that the development matches the design)
		The response describes the use of suitable techniques/processes for the phases considered.
		The candidate uses specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.

Total for Question 4 – 18 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (a) (i)	 Any one feature from: 1. Adjustable font type / style 2. Adjustable colour scheme 3. Read this page / listen to this page 4. Alt text 5. Screen reader support 1x1 		Responses must be about an accessibility feature rather than a design features. E.g. 'the font can be changed by the user' not 'use a different font'	1

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (a) (ii)	A suitable explanation of why companies should follow accessibility standards such as: A moral / ethical obligation (1) to provide access to all (1) to make the site / business more inclusive (1) The law / Digital Discrimination Act (DDA) (1) must be followed (1) or they may get fined (1) More / wider spread of people (can access the site) (1) increases potential customers (1) which could increase income / improve reputation (1)		Accept 'EU Equal Treatment Directive' as alternative to DDA Accept responses that are phrased in the negative e.g. 'if they do not follow the law' / 'excluding people is not ethical'	
	1+1+1			3

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (b) (i)	 Any four research areas from: 1. ICT capability 2. Familiarity with the gym's website 3. Literacy level of potential users 4. Typical layout of online surveys (Accept 'design' for layout) 5. Types of questions used in similar online surveys 6. Number of people that use the gym 7. Aspects of the gym to include in the survey (services, facilities etc.) 8. Accessibility requirements 9. How user usually access the internet (connection / device) 10. How the results will be analysed / used 11. Who will use the results 12. Typical structure (e.g. branching logic) of online surveys 			4
L		1	1	

Question Number	Answer		Do not accept	Additional Guidance	Mar k
5 (b) (ii)		one mark for a suitable reason for ach piece of test data. Reason for choosing this test data		Allow responses phrased in negative version of	
	4	 Check that the field accepts numeric data Check that a validation rule works (4 year old unlikely to be a gym member / filling out the survey) Check field accepts valid 2 digit / 		the mark scheme examples e.g. 'At – will check to see if it	
	At	 Check field will reject non- numeric data 		does not accept letters'	
	1000	 A non valid age (check that the field will reject this / display an error message) Checking age entered is within an acceptable range 			
		4x1			4

Question Number	Indicative Content
	 Discussion of how the increase in use of mobile technology to access content has impacted on the design, layout and features of digital products. Discussion could include: Need to provide mobile alternatives of websites and applications place additional demands on developers (e.g. additional testing, costs etc.) Varying screen size / use of zoom requires graphics to be scalable Careful choice of file format in order to: control asset (and overall product) file size to cope with potentially being accessed on a mobile / 3g connection ensure compatibility with a range of devices ensure wide range of devices can access and display content (e.g. some tablet devices do not support flash /.swf files) Lower performance specifications (e.g. processor speeds, RAM etc) of mobile devices compared to larger computers may affect the level of content and functionality of mobile applications, to ensure the product still runs smoothly and efficiently Expectation of users for integration of converged technologies (e.g. location based services, camera, torch)
	 Security features – consideration of how apps secure content as there is a greater risk of the device being lost / stolen due to it being portable Notifications – providing options to customise how the app uses available notification systems (e.g. vibrate, blink light etc.)

Lev	Mar	Descriptor
el	k	
_	0	No rewardable material.
1	1-2	The response includes general statements related to design / layout / features of digital products.
		The design / layout / features are not always relevant to digital content on mobile devices.
		The candidate uses everyday language and the response lacks clarity and organisation. Spelling punctuation and the rules of grammar are used with limited accuracy.
2	3-4	The response considers design / layout / features of digital products.
		The design / layout / features are mostly relevant to digital content on mobile devices.
		The candidate uses some specialist terms and the response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
3	5-6	The response links the `increased use of mobile devices to access digital content' to the design / layout / features of digital products.
		The response includes relevant examples of design / layout / features.
		The candidate uses specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.

Total for Question 5 – 18 marks Total for Paper – 80 marks

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