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Mark Scheme (Results)

June 2012

GCSE ICT (5IT03)
Unit 3: 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.
- Candidate can be credited where they have given two or more correct responses in a single answer space, but have given incorrect or blank responses elsewhere.

Question Number	Answer					Additional Guidance	Mark
1(a)	**Product**	**To inform**	**To entertain**	**To educate**	**To advertise**		
	Email to parents about an increase in the cost of school dinners.	x					
	Digital poster about the sale of tickets for a school disco.				x		
	Digital teaching materials.			x			
	A video of last month's school show.		x				**4**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
1(b)	Any **three** from: • Position/move title so not truncated/all on the page • Improve alignment/position of text boxes/ move "open evening" text box so not off edge of page • Make all text same size/make message from head text bigger • Use more appropriate image for school show article • Add school logo/contact details • Add colour to an identified feature (e.g. heading, images) 3x1	Text needs to be clearer to make it easier to read (in question)	Answers must be improvements not identification of an error (e.g. 'make the title clearer as it overlaps' would not gain a mark. It need to identify the action to be taken, i.e. 'move title so all on page') Allow 'make all text bigger' if no other reference to font size.	**3**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
1 (c)(i)	Any **two** from: • Sitemap / structure diagram / flowchart • Moodboard • Storyboard 2x1	Design sheet House style		**2**

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

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
1(d)(i)	Any **two** from: • School name/details • navigation bar / side menu / any navigation • chosen colour scheme • (consistent) layout / layout guides / frames / borders • font styles / font sizes / font colours • hyperlink colours/actions	House style	Do not accept 'colour' or 'font' without further explanation	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
1(d)(ii)	• Improves the consistency of the site (1) as common elements are applied to every page that uses the template (1) • Site looks more professional/gives better user experience (1) because it has a consistent layout (1) • Saves time (1) as only new elements need adding / as common elements already provided (1) (e.g. changes to colour scheme etc., can be made on template and then applied) • Reduce number of errors (1) as less has to be added to each page (1) • Easier to make global changes (1) just change template and apply (1) 2x1		For an answer to gain both marks it should be a point with a reason and not just two points**.** Some marking points are interchangeable across paragraphs.	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
2 (a)(i)	Candidates to provide a suitable and consistent design. Award **one** mark for each of the following: • Title added/position of title indicated in same place on each slide • Indication of logo in same place on each slide • Same font style identified for all slides • Same transition identified for each slide • Appropriate slide length indicated for each slide 5x1		Slide length indicated might not be same for each slide but must be appropriate. e.g Title slide may be shortest timing as less text to read. Appropriate slide length (max 40 seconds; min 5 seconds)	**5**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
2(a)(ii)	Any **two** from: • Font size • Size/dimensions/exact position (e.g. coordinates) of logo • indication of colours to be used/colour scheme • description of actions (animation etc.) 2x1		The question asks for design details not design content	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
2(b)	Any **one** from: • sound may cause disruption/distraction (in a school reception area)/ school reception area needs to be quiet • school reception area might be busy and so might not be heard properly • the large screen may not have speakers 1x1			**1**

<table>
<tr><th>Question Number</th><th>Answer</th><th>Do not accept</th><th>Additional Guidance</th><th>Mark</th></tr>
<tr><td>2(c)(i)</td><td>Award one mark for identification of a specific property of the file and one mark for appropriate explanation

<table>
<tr><th>Property</th><th>Explanation</th></tr>
<tr><td>Unusual/ unrecognised file type / opens with KHGH Multimedia Magic</td><td>• may not be compatible with his version of the software
• may not have the required software
• computer may be blocking it (as a potential security risk)</td></tr>
<tr><td>Compressed folder</td><td>• Frank may not know how to uncompress folders
• may need specialist software to open / run / uncompress it</td></tr>
</table>
2x1</td><td></td><td>Candidates should provide a linked answer which identifies a specific property (1) and the explanation of the cause of the problem (1)</td><td>2</td></tr>
</table>

Question Number	Answer	Do not accept	Additional Guidance	Mark
2(c)(ii)	• To prevent (other people) making changes/editing it • To prevent Asrah making accidental changes • Version control 1x1	Answers relating to copyright		**1**

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (d)(i)	Compression			**1**

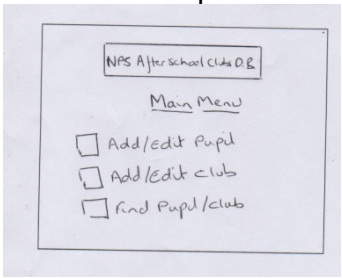
Question Number	Answer	Do not accept	Additional Guidance	Mark
2(d)(ii)	Award **one** mark for identification of an advantage and **one** mark for appropriate explanation. **Advantage** / **Explanation** Compression will reduce overall file size of poster — • which will make uploading/ downloading easier/faster • make it more suitable to email • may make the file load faster • will mean file could be used on a wider range of devices Poster will load faster — • improving user experience 2x1		Reference to file size must clearly relate to overall/final size of the poster and not the assets. Candidates should provide a linked answer which identifies a specific advantage (1) and a linked explanation (1).	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3 (a)	Any **two** from: • Help messages/user instructions • Drop down menus/lookups • Radio buttons / check boxes • Input masks • Auto-complete 2x1	Validation without reference to user message		**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3 (b)(i)	Any **one** characteristic from: • Adult / member of staff / correct age range • appropriate level of ICT skills (same as intended user) • low ICT skill • high ICT skill / has experience using database systems • somebody with experience of the manual system 1x1	Target audience Pupils		**1**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3(b)(ii)	Any **three** from: • expected result/outcome • actual result/outcome • further action required following test / improvement needed • record of action carried out • result of retest • date of test 3x1	Descriptions of actual tests to be carried out.	Column headings may not be the same wording as shown.	**3**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3(b)(iii)	Candidate should provide a suitable/valid explanation of why this data might be used to test such as: • Test data contains values outside possible year group (1 to 6) and data within expected range (1) to test possible validation rules/to see if system will allow/deny these as appropriate (1) • Values in expected year group to check system functions as expected (1) may be used to test data boundaries (1) • Test data contains negative values (1) to test robustness of system (1) 2x1		Answers must clearly show an understanding of testing the field/data structure/validation and not the form.	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3 (c)	Students should provide a sketch. Award **one** mark **each** for clear indication of the following in the design: • Product Name (i.e. NPS after school clubs database) • Screen title (Main Menu) • Between 3 and 6 action/navigation buttons Award **one** mark for clear well structured and appropriate design. 4x1		To award design mark, candidates sketch should clearly show an understanding of structure and layout. i.e. screen title above navigation features layout makes sensible use of available space. 	**4**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3(d)(i)	Any **one** reason from: • to support users who cannot read very well • aid visually impaired users • legal requirements 1x1	To make the page accessible	Only accept answers with reference to “user experience” where this is related to helping people with low literacy or poor eyesight	**1**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
3(d)(ii)	Any **three** design features from: • simple language • simple easy to read font / larger font • use of clear icons / images / animation to help understanding • "point and click" / rollover features / interactivity • contrasting colours / use of colours that improve readability • less text • simple buttons / navigation 3x1	"read this screen"/narration feature	Answer should clearly show an understanding of making it accessible and not just appealing	**3**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
4 (a) (i)	Any **one** valid reason such as: • anyone should be able to use it / age range of audience is likely to be wide • ICT skill level of users may be low • widen the potential audience/allow more people to use it • people will only use the system occasionally • stop people getting frustrated / ensure they keep using it 1x1	"improve user experience"		**1**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
4 (a) (ii)	Award 1 mark for identification of a suitable method for gathering information/opinions/views regarding the virtual tour • Interview (1) – identify a typical member of the audience/identify members of staff (1) and conduct a face to face discussion to gain their opinion of what they would like to go into the tour (1) • Questionnaire/survey (1) – choose a sample of pupils and parents / target audience (1) (and send out or ask a series of written questions) to identify what audience would want in virtual tour (1) • Observation – identify a subject area/part of school/activity that is to be included in the tour and arrange time to observe (1) make notes regarding what is seen during the observation so design of "virtual" activity is more accurate(1) • Back ground research (1) – find and analyse virtual tours from other schools (1) in order to identify features of good design that could be included in product (1) 3X1		A suitable method of gathering information must be identified in order to gain credit. For full marks description/explanation should be in the context of the school "virtual tour" and should not be just a general description of the identified method	**3**

Question Number	Answer		Do not accept	Additional Guidance	Mark
4 (b)	Design feature	Example use		Accept only specific examples relating to a "virtual tour" type application for the school. Example list is not exhaustive. Credit any suitable example use that is related to "virtual tour"	
	Animation	• Animated/cartoon tour guide • animated .gif images to illustrate subjects in menu screen e.g. animated book opening for "literacy" • Help/how to use section giving instructions for using "virtual tour" • Animated navigation buttons			
	Image	• Show examples of pupil work/activities • "meet the staff" page • allow users to see parts of the school that would be of interest • Map of the school			
	Video	• Video introduction to school by Headteacher • "tour" of the school • "slide show" of example student work set to music • interviews with pupils and/or staff			
	Sound	• "click" sound effect on navigation buttons • background music to tour • audio commentary/read this page • Sound effects of school bells and class room/pupil noise to add to realism of tour • Spoken help feature			
		4x1			**4**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
4 (c)(i)	Download (1) Streaming (1) 2x1			**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
4(c)(ii)	Suitable explanation of a codec such as: a codec is a file/piece of software which the user must download/install to be able to view the video (1) the codec allows the computer to correctly decompress the video (1) compresses/reduces file size of an **audio/video** file (1) to make it easier to download/upload (1) 2x1		Credit responses that show an understanding of a codec being used to compress / decompress an **audio/video** file Accept 'code/decode' for 'compress/decompress'	**2**

Question Number	Indicative Content
4 (d)	**Indicative content for how the designer should ensure a complete and thorough test process of the virtual tour** • The designer should ensure different types of testing are carried out and have a clear idea of what and how to test. • Testing should cover functionality, performance, usability, accessibility, security and stability. • "How to test" should cover a range of aspects such as selection of appropriate test users, testing on different platforms, producing a systematic and accurate test plan and ensuring feedback is collected and used. • Examples of how testing of functionality, performance etc. could be carried out. • Examples to be given of suitable test users including reasons why these would be suitable in this case.

Level	Mark		Descriptor
	0		No rewardable content
Level 1	**1-2**	Content	The candidate identifies some of the methods/processes involved when testing but descriptions of the processes are vague.
		Discussion	The candidate may provide some limited examples but these will be general and lack clear relevance.
		QWC	The student uses everyday language but their response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.
Level 2	**3-4**	Content	The candidate has identified and provided brief descriptions of different methods/processes involved in testing.
		Discussion	These are supported by some relevant examples.
		QWC	The student uses some specialist terms and their response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
Level 3	**5-6**	Content	The candidate has identified and provided clear descriptions of a variety of the methods/processes involved.
		Discussion	Examples are well chosen and are clearly relevant to the given scenario.
		QWC	The student uses appropriate specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5 (a)(i)	Any **two** features from: • navigation buttons to other pages • "click to play video"/video controls (play, pause etc) • click to enlarge flag • hyperlink (to website) • volume/sound control 2x1			**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5 (a)(ii)	• Title/text/captions • Image of map • Image of Castle 1x1			**1**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5 (a) (iii)	Any **one** type of audio from: • Soundtrack/music (1) • sound effect (1) Award **one mark for** any suitable example use for candidates given sound type. possible examples: Sound track: • National anthems • Theme tune for quiz Sound effect: • "click" sound on navigation button • word read out on "rollover" • applause/cheers etc. when getting a question correct in quiz • accompany a page transition 2x1	Answers relating to narration will not be awarded	Candidate example should be clearly a use of their identified audio type for credit. Allow partial credit for identification of sound type with no example OR a clear, specific example relating to the scenario (e-learning package) but no identification of audio type.	**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5 (b)	Versioning 1x1			**1**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5(c) (i)	Candidate adds clear indication of **two** of the following to the partially completed screen • "score" feature • "restart" button • "next question" button 2x1			**2**

Question Number	Answer	**Do not accept**	Additional Guidance	Mark
5 (c) (ii)	Award **one** mark for inclusion of each of the following in a "flow chart" diagram • Decision box checking score • "yes" route leads directly to "Enter Name" prompt • "Enter Name" prompt leads to "display high score" • "no" route leads directly to "display high score" (must lead to same "display high score" box as "Enter Name") 4x1		Students do not need to use conventional flowchart symbols (e.g. diamond for decision) however it must clearly show the flow of information through the use of links between the components and an indication of the direction of flow	**4**

Question Number	Indicative Content
5 (d)	**Indicative content for methods of gathering and preparing content for inclusion in digital products.** Different methods can be used for gathering and preparing digital content. The designer may choose to locate assets created by other people, she may choose to create all assets from scratch or may choose to re-purpose assets she has previously created. Using others' assets may not fit a design idea exactly so would need "preparing" e.g. some modification to their design, file sizes, dimensions, file types etc. Express permission would need to be sought when using/modifying these assets or public domain/copyright free materials would need to be used. Creating assets from scratch means they would fit the design brief exactly and she would own the copyright but development time would take longer. May require expensive/specialist software which would require Asrah to have wider skills range or take time to learn. Re-purposing her own assets would solve some time issues and avoid copyright problems. They may not fit the brief exactly so some time would be needed to prepare them to be suitable for the current product. Codes of conduct including seeking permission to use copyrighted materials and "good practice" in terms of using any digital materials such as images of other people etc.

Level	Mark		Descriptor
	0		No rewardable content
Level 1	**1-2**	Content	Candidate identifies, and makes general statements about methods of gathering and preparing digital content. The candidate may only discuss the benefits and drawbacks of preparing own content or they may provide limited discussion of more than one method. Some reference may be made to either copyright compliance or codes of conduct.
		Discussion	Discussion is general and examples may not be relevant.
		QWC	The student uses everyday language but their response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.
Level 2	**3-4**	Content	The candidate has considered different methods of gathering and preparing digital content. They give brief explanations of the methods as well as well as brief explanations of codes of conduct for using your own and others materials.
		Discussion	They evaluate the methods they identify but may focus on either only positive or negative aspects of each. They use some relevant examples.
		QWC	The student uses some specialist terms and their response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
Level 3	**5-6**	Content	The candidate has clearly explained different methods of gathering and preparing digital content. They clearly explain key areas of “good practice” in terms of codes of conduct.
		Discussion	They use well chosen examples (where appropriate) to support most of the points that they make. They evaluate their identified methods, considering a range of positive and negative aspects.
		QWC	The student uses appropriate specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.

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