

Mark Scheme (Results)

Summer 2018

Pearson Edexcel GCSE in
Information and
Communication Technology
(5IT03/01)

Paper 1: 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	Mark
1 (a)	Any three from: • Space buttons (on top nav bar) out /make bigger (to avoid mis-clicks) • Disable auto play/remove video • Provide option for full screen/enlarged video • Remove/hide/fade 'scroll bar' / allow scrolling by finger swipe • Make news section so that it doesn't scroll (e.g. carousel menu) / put news on a different page • Use 'hamburger' menu / hide/collapse menu options • Make links to news stories larger/work anywhere on the text box (not just "press here") • Make use of gestures/use swipe for next instead of buttons (for featured articles section) • Make the app respond to portrait/landscape orientation			3

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

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (b)(i)	B			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (i)	Any one benefit from: • Don't have to wait for the whole video to download before watching it • Saves storage space on the target devices • Users will always see the most up to date version (of the video) • Quality of video can be dynamically altered depending on the quality of the connection/performance			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (ii)	Any one drawback from: • The video may not play smoothly / may buffer • Watching the video several times will use more of your data allowance • Users need to have an active internet connection to view the video • The video may not be available when you need it		MKPT 3 – Must be clear that internet is needed when watching the video	1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c)(iii)	Any one from: • Sound effects (SFX) • Sound track • Music • Background sound/audio • Diagnostic sounds • Alerts sounds	'Sound' on its own		1

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (d)	Any two reasons from: • Gives creators/programmers an idea of how the product will 'feel' • Helps to visualise the final product (compared to design sketches) • Shows the planned structure/flow of a product • Can be used to gain initial reactions/feedback from users • More rapid prototyping / a number of alternative ideas can be tried out • Changes /issues may be more easily identified than on a paper design • Different ideas can be tested without having to make it fully functional	'See what it looks like' without clarification for MKPT 2		2

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (e) (i)	Any two from: • Colour scheme • Font style(s) • Font size (s), • Font type(s) • Language style • Image styles • Company logo/branding			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (e) (ii)	Any two from: • Use/alter compression / reduce file size • Convert them to vectors/make them scalable • Alter the dimensions/measurements • Alter the resolution • Export to a different file type/format • Crop • Alter colour (levels)		Accept 'reduce size' on its own, only if not already awarded for MKPT 1 or 3	2

Total for Question 1 – 14 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
2(a) (i)	Any two improvements from: • Simplify the text / split in to sub stages • Format as a numbered/bulleted list / table • Separate each stage in to its own paragraph • Better use of white space • Have the all instructions on the same page • Use better character spacing • Fully justify the text			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (a) (ii)	A			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
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2 (a) (iii)	An explanation such as: Created using points/coordinates and lines) (1) so the image is redrawn/recalculated every time it is resized (1) Because it contains only the drawing instructions (1) so it can be perfectly recreated (at different sizes) (1). Allow Vectors are not bitmap images / not made up of pixels (1) so does not become distorted when enlarged (1)			2
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Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (b) (i)	A description to contain three from: • Checks email is valid • Compares input to set criteria • So that emails/e-zine can be sent • Alert the user/give error message if not valid • Save the email if valid 1+1+1		Accept reverse arguments (e.g. to prevent invalid emails)	3

Question Number	Answer	Do not accept	Additional Guidance	Mark										
2 (b) (ii)	Award one mark for each correct output in the table <table><tr><th>Data entered</th><th>Output message</th></tr><tr><td>Brandon@email.com</td><td>'Thank you, your email address has been saved'</td></tr><tr><td>Email@brandon</td><td>'Invalid email check you have included a domain'</td></tr><tr><td>brandonemail.com</td><td>'Invalid email check the you have included the @ symbol'</td></tr><tr><td>Brandon</td><td>'Invalid email check the you have included the @ symbol'</td></tr></table> 4x1	Data entered	Output message	Brandon@email.com	'Thank you, your email address has been saved'	Email@brandon	'Invalid email check you have included a domain'	brandonemail.com	'Invalid email check the you have included the @ symbol'	Brandon	'Invalid email check the you have included the @ symbol'		Marks can be awarded if candidate response includes spelling or minor transcription errors as long it is recognisable as the correct output.	4
Data entered	Output message													
Brandon@email.com	'Thank you, your email address has been saved'													
Email@brandon	'Invalid email check you have included a domain'													
brandonemail.com	'Invalid email check the you have included the @ symbol'													
Brandon	'Invalid email check the you have included the @ symbol'													

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (c)	An explanation such as: To make the e-zine file size smaller (1) As some email systems have restrictions on file size / users don't want to wait for large files to download (1) So that the email attachment does not exceed common size limits (on attachments) (1) and get bounced back (1). 1+1			2

Total for Question 2 – 14 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (a)	Award one mark each to a maximum of four for: • 'Brandon's ICT Services' • Company logo • Area identifying location of web address • Annotation identifying web address as a hyperlink • Annotation identifying animation to be used Award one mark for quality of design 5x1		Quality of design should be awarded for designs that show a correct use of spacing, sizing of elements, clarity of design.	5

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b) (i)	A description such as: Use the lasso/marquee/magic wand tool (1) to select the image background/white area (1) and delete/remove/set to transparent (1) Select image layer (1) use eraser tool (1) to manually remove the white area (1) 1+1+1		Typical answer structure (order may vary): Tool (1) How to select image background (1) How it would be replaced (1)	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b) (ii)	An explanation such as: It is not generally supported by web-browsers (1) which means the banner will not display / may not be able to apply transparency (1) It is often uncompressed (1) making the overall size of the webpage very large / webpage would load more slowly (1) Users may need to install a plugin/alternative software (1) to display the banner (1) 1+1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (c)	A description such as: By aligning content/assets (1) Where lines intersect/along lines (1) 1+1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (d)	Any two from: • Makes it clearer to developers which file to use/work on (1) • Latest/most up to date file can be identified easily (1) • Points at which major and minor changes can be easily identified (1) • Aids documentation of testing/changes (1) • Last usable version can be identified (if recent version becomes corrupted) (1) • So editing is non-destructive (1)			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (e)	A description to contain two from: • The sound may be unexpected (1) • The sound may interfere/conflict with other content (1) • User may not be able to alter volume/turn sound off (1) • Causing users to become frustrated/distracted (1) 1+1			2

Total for Question 3 – 16 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (a)(i)	B			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (a)(ii)	Any one from: • Template • Master page • CSS file			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (a)(iii)	Any two from: • The letters are joined/cursive / may not be appropriate for some visually impaired users • It is difficult to distinguish between some letters (e.g. u, v) • Readability/legibility may vary depending on screen size • Not all users will have the font installed • Doesn't match the style/content of the website		Award a mark for 'difficult to read' if mark point 1, 2 or 3 not already awarded	2

Question Number	Answer	Do not accept	Additional Guidance	Mark
4(b)	A description of how design features could be used such as: Graphical buttons (1) that use common/universal icons (1) to show purpose of button/link (1) Make interaction intuitive (1) through common design conventions (1) such as home button always at first button in a nav. bar (1) Reduce the amount of text on the site/page (1) by using more multimedia content (e.g. video, animation) (1) showing how to do something/how something works (1) Have a translation feature (1) so preferred language (1) can be selected from a list / based on browser settings (1) 1+1+1		Example response 2 – Accept any suitable examples of design conventions	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (c)	A description of a method for gathering information such as: Use a questionnaire/form on the site (1) to get data from a large sample group (1) using closed questions (1) Use a forum (1) with a small selected sample (1) to get detailed responses/discussions (1) Choose a sample group (1) choose the collection method (e.g. questionnaire) (1) analyse results (1) Use cookies (1) to get information about the users' viewing/browsing history (1) to identify interests/related products (1)	'observation of users' or 'document sampling'	Accept 'use web analytics' as a method of collecting data Typical answer structure: Collection method (1) Sample group (1) Type of data it collected/ how used (1) Allow examples of the user characteristics/preferences being collected e.g. age, sites they visit etc. Allow 'survey' for questionnaire	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
4(d)	An explanation such as: Page orientation could be set to portrait(1) so that it fits the screen orientation (1) Proportions of assets/pages may be different (1) to suit different screen size/ratio (1) By reducing the amount of content (on each page) (1) so the site will be optimised for smaller screens (1) Different type of content (e.g. no rollovers) (1) to suit touch screen only interface (1) File sizes will be reduced (1) to make it more accessible on a mobile data connection (1)			2

Question Number	Indicative Content
* 4 (e) QWC	An analysis of how accessibility features can be used on a website to make sure it is suitable for a range of users. Alt text: • Provides descriptions/explanations of the content of the images supporting understanding of the text • Supports users with sight problems • Provides support for the use of screen readers • Tags are loaded by the browser before the image content, Alt text will allow users with very slow internet connections to turn off images but still receive the Alt text tag which will speed up loading/performance on their device. Resizable fonts • Supports users with sight problems and allows users with varying screen sizes • Allow users to alter the size of the text in the site • Allows users to adjust to their own preference/to suit the device/display they are using Support for screen readers • Enables users that are unable to see/read the site themselves (e.g. blind, users with literacy problems) to have the computer read to them • Use of alt text on images provides descriptions • Layout text in a logical order so it makes sense when read, as screen reader reads in a linear fashion • Ensure link names are sensible so they make sense if 'tabbed' to and read out of context • Use sensible headings to organise content to create natural breaks and understanding when read out by the computer Adjustable fonts • Allows users to alter the font style/typeface used

	• Some users may have sight problems that makes some fonts difficult to read. Sites could provide options to swap fonts. Kerning (spacing between characters) varies from font to font making it easier to distinguish individual characters on some fonts. ‘Listen to this page’ • Screen readers can only read out text that is contained within tags or as standard text on the page. • Information or text that is embedded with an image/asset may to be able to be read by the screen reader software • The website should provide a feature that will read any of the information that the screen reader cannot process.
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Level	Mark	Descriptor
	0	No rewardable content
1	1-2	The candidate states some accessibility features that could be used in a website. The response may be general and focus on only one type of user. 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 candidate describes how some accessibility features could be used in a website The candidate analyses by making some links between the characteristics of users and how the accessibility features aid them in using the website 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 candidate describes how a range of accessibility features could be used in a website The candidate analyses by clearly linking the differences in the characteristics of a range of different users and how the accessibility features aid them in using the website 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)	A description such as: Add a drop-down (1) which provides a list of options (1) which will prevent typing errors / restricts responses to only valid titles (1)		Accept 'radio buttons' instead of drop-down	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
5(a) (ii)	Any two from: • Play sound (when clicked) • Change colour (when mouse over) • Change/ resize button image / Change to depressed state (when clicked) • Change from icon to text (when mouse over) • Change the icon (when mouse over) • Message to user		Accept examples that show an understanding of the interactive features (examples should be appropriate)	2

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (b)	Award two marks for each description to a maximum of four marks: Enter too few/too many characters (for a valid postcode) (1) to make sure the form checks/restricts entry to a valid length (1) Enter a mix of letters and numbers/all numbers/all text (1) to check that the form checks the postcode format (1) Enter punctuation characters (1) to check that the field only accepts numeric or text data (1) Enter correct code with upper and lower case letters (1) to check that both are accepted (1) Enter a correct code with space(s)(1) to check that spaces are removed/ignored / input mask works (1) Submit the form with blank field (1) to test the form has a presence check (1) (1+1) + (1+1)		Award marks for responses that provide examples of test data that show an understating of the concepts of the different tests	4

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (c)	An explanation such as: So that the website can deal with unexpected events/large amounts of data (1) and still remain functional (1) so that the service can still be provided to customers/users (1) So that the service provided isn't disrupted (1) by increased traffic (1) or unexpected events/data (1) To stop the service failing (1) because of additional/increased traffic (1) causing additional strain on the server (1) Brandon's users will have a negative experience (1) if the service is unreliable (1) which may cause them not to return (1) 1+1+1			3

Question Number	Indicative Content
* 5 (d) QWC	A discussion of the how layout would impact on usability of the store which could cover: • Uses of layout to ensure usability: ○ Consistency between pages within the site making elements easy to find ○ Similarity/familiarity with other webstores ○ Intuitiveness of interaction ○ Ease of navigation ○ Accessibility (order of alt text elements) ○ Layouts can promote specific products (make recommendations prominent) ○ Appropriate use of space to ensure balance between the number of products on the screen and the amount of information about each • Discussion of impacts could include: ○ Customer retention and satisfaction ○ Improved sales ○ 'Word of mouth' recommendations

Level	Mark	Descriptor
	0	No rewardable content
1	1-2	The candidate states some ways that usability of the webstore may be affected by layout The response may not link layout to the success of the store. 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 candidate uses some examples to describe how the usability of the webstore may be affected by layout The candidate makes some links between the use of layout and the success of the webstore 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 candidate uses a range of examples to describe how the usability of the webstore may be affected by layout The candidate clearly links the use of layout to the impact this has on the success of the webstore 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