

Unit 2 – Mark scheme

Question number	Answer	Mark
1(a)	<p>Award one mark for making the link and one mark for justification/expansion up to a maximum of two marks.</p> <ul style="list-style-type: none"> The item on line 28 has been assigned an id (1), which is used as the target destination in line 23 (1). When the word 'introduction' on the page is pressed (1), the browser will reposition the page to show the text around line 28 (1). <p>Accept any other reasonable response.</p>	2

Question number	Answer	Additional guidance	Mark
1(b)	<p>Award one mark for each correction up to a maximum of two marks.</p> <ul style="list-style-type: none"> Change I to A - Line 8: <code><ol type="I"></code> should be <code><ol type="A"></code> (1) Change bullets to letters - Line 42: <code></code> should be <code><ol type="a"></code> and Line 55: <code></code> should be <code></code> (1). 	Line numbers may not match candidate's file if they have inserted or deleted lines.	2

Question number	Answer	Mark
1(c)	<p>Award one mark for identifying the source and one mark for defining the style.</p> <ul style="list-style-type: none"> <code><img src="/myImages/coffeecup.png" (1).</code> <code>width="200" height="300"></code> (1). <p>Responses may include an 'alt' but it is not required.</p>	2

Question number	Answer	Mark
1(d)	<p>Award one mark for identifying the function of the 'lang' attribute and one mark for an extension/justification up to a maximum of two marks.</p> <p>The 'lang' attribute determines the language of the page (1), so that screen readers can use the most appropriate pronunciation or accent / switch to a different language mode so that search engines can return language specific results (1).</p>	2

Question number	Answer	Mark
2(a)	<p>Award one mark for each linked descriptive point up to a maximum of three marks.</p> <ul style="list-style-type: none"> The CSS class for the content (dropdown-content) sets the original colour as aquamarine on line 22 (1). The <a> HTML tag, on line 33, is connected to the CSS a:hover on line 24 (1). When the mouse is hovered over a flavour in the dropdown-content, line 24 is activated, causing the colour to change to pink (1). The original colour of the dropdown content is aquamarine, on line 22 (1). The <a> tag is under the 'dropdown content' class, on line 33 (1). When the mouse is hovered over a flavour, the a:hover on line 24 is picked up, changing the colour to pink (1). <p>Accept any other reasonable response.</p>	3

Question number	Answer	Additional guidance	Mark
2(b)	<p>Award one mark for setting the position to absolute and one mark for adding the transform attribute.</p> <p>The contents of the .mycontainer class need to be changed to:</p> <pre>.mycontainer { position: absolute; (1) top: 50%; left: 50%; transform: translate (-50%,-50%); (1) }</pre>	Changes must be made in the CSS (<style> </style>).	2

Question number	Answer	Mark
2(c)	<p>Award one mark for setting the radius, one mark for the colour and one mark for the font size up to a maximum of three marks.</p> <pre>#roundbox { border-radius: 10px; (1) background: HotPink; (1) font-size: 2.5em; (1) }</pre>	3

Question number	Answer	Mark
2(d)	<p>Award one mark for identifying how CSS and HTML work together and one mark for justification/expansion up to a maximum of two marks.</p> <p>HTML is used to define the individual components (1) of the page, such as images and buttons, whereas CSS is used to define how these components are presented (1), such as colours, and sizes.</p> <p>Accept any other appropriate response.</p>	2

Question number	Answer	Additional guidance	Mark
3(a)	<p>Award one mark for identifying a suitable function and one mark for a descriptive point on what the function does up to a maximum of two marks.</p> <ul style="list-style-type: none"> The isNaN() function can be used to determine if the input is a number (1). If the input to the function is a number, the function returns false/if the input to the function is not a number, the function returns true (1). 	Do not award a mark for isInteger as some numbers would not be picked up.	2

Question number	Answer	Mark
3(b)	<p>Award one mark for each of the following up to a maximum of five marks.</p> <ul style="list-style-type: none"> A total counter needs to be declared (1). Each character in the string must be looked at (for) (1). Each character must be compared to the @ symbol (1). An additional test must be provided on the 'if' statement (1). A functional solution (1). <p>Example</p> <pre> var atCount = 0; (1) var character = ""; for (var i=0; i<emailString.length; i++) { (1) character = emailString.charAt(i); if (character == '@') { (1) atCount = atCount + 1; } } if ((atCount > 1)) (1) </pre>	5

Question number	Answer	Mark
3(c)	<p>Award one mark for each of the following up to a maximum of two marks.</p> <ul style="list-style-type: none"> • conditional test (1) • appropriate relational operator (1) <p>Award two marks for the following up to a maximum of two marks.</p> <ul style="list-style-type: none"> • the correct output is displayed in an alert box (2) <p>e.g.</p> <pre>if (a < b) { alert (a); } else { alert (b); }</pre> <p>e.g.</p> <pre>var compareNumbers = (a < b) ? a:b; Alert(compareNumbers);</pre>	4

Question number	Answer	Mark
3(d)	<p>Award one mark for the correct method and one mark for the correct property up to a maximum of two marks.</p> <ul style="list-style-type: none"> • 'getElementById' is the method (1). • 'innerHTML' is the property (1). 	2

Question number	Answer	Mark																																													
4	<p>Award one mark for each of the following points up to a maximum of ten marks.</p> <p>Award up to a maximum of six marks for the adherence to the component layout and the application of CSS using the levels based mark scheme below.</p> <table border="1" data-bbox="384 533 1337 1962"> <thead> <tr> <th data-bbox="384 533 555 600">Evidence found in:</th> <th data-bbox="555 533 1278 600"></th> <th data-bbox="1278 533 1337 600"></th> </tr> </thead> <tbody> <tr> <td data-bbox="384 600 555 667">HTML – Head</td> <td data-bbox="555 600 1278 667"><title></title> used to provide a page title</td> <td data-bbox="1278 600 1337 667">1</td> </tr> <tr> <td data-bbox="384 667 555 734">HTML – Head</td> <td data-bbox="555 667 1278 734"><meta name = “keywords” content=“skateboarding”</td> <td data-bbox="1278 667 1337 734">1</td> </tr> <tr> <td data-bbox="384 734 555 801">HTML – Head</td> <td data-bbox="555 734 1278 801">Uses an external style sheet</td> <td data-bbox="1278 734 1337 801">1</td> </tr> <tr> <td data-bbox="384 801 555 1032">HTML – Body</td> <td data-bbox="555 801 1278 1032">At least one HTML5 semantic element used to define part of the page: <header> <nav> <section> <article> <footer></td> <td data-bbox="1278 801 1337 1032">1</td> </tr> <tr> <td data-bbox="384 1032 555 1151">CSS</td> <td data-bbox="555 1032 1278 1151">The width of the page is set to 1024px and Left margin of the page is set to 20px Right margin of the page is set to 20px</td> <td data-bbox="1278 1032 1337 1151">1</td> </tr> <tr> <td data-bbox="384 1151 555 1205">CSS</td> <td data-bbox="555 1151 1278 1205">Arial, Helvetica, sans-serif used for all text</td> <td data-bbox="1278 1151 1337 1205">1</td> </tr> <tr> <td data-bbox="384 1205 555 1283">CSS</td> <td data-bbox="555 1205 1278 1283">Header, footer and logo link background (nav) set to Navy (#000080)</td> <td data-bbox="1278 1205 1337 1283">1</td> </tr> <tr> <td data-bbox="384 1283 555 1337">CSS</td> <td data-bbox="555 1283 1278 1337">Lesson text is White (#ffffff)</td> <td data-bbox="1278 1283 1337 1337">1</td> </tr> <tr> <td data-bbox="384 1337 555 1435">HTML – Body and CSS</td> <td data-bbox="555 1337 1278 1435">One item positioned as shown on wireframe</td> <td data-bbox="1278 1337 1337 1435">1</td> </tr> <tr> <td data-bbox="384 1435 555 1534">HTML – Body and CSS</td> <td data-bbox="555 1435 1278 1534">At least 3 items positioned as shown on wireframe</td> <td data-bbox="1278 1435 1337 1534">1</td> </tr> <tr> <td data-bbox="384 1534 555 1610">HTML – Body</td> <td data-bbox="555 1534 1278 1610">A functioning internal link is included to lessonPage.html</td> <td data-bbox="1278 1534 1337 1610">1</td> </tr> <tr> <td data-bbox="384 1610 555 1794">HTML – Body</td> <td data-bbox="555 1610 1278 1794">The image slider is included on the page and all four of the provided images slide. Award the mark if the image slider is not positioned as shown on the wireframe</td> <td data-bbox="1278 1610 1337 1794">1</td> </tr> <tr> <td data-bbox="384 1794 555 1912">HTML – Body</td> <td data-bbox="555 1794 1278 1912">Text information inserted as an iFrame Do not award if iFrame has a border</td> <td data-bbox="1278 1794 1337 1912">1</td> </tr> <tr> <td data-bbox="384 1912 555 1962">CSS</td> <td data-bbox="555 1912 1278 1962">Copyright is horizontally centred within the footer</td> <td data-bbox="1278 1912 1337 1962">1</td> </tr> </tbody> </table>	Evidence found in:			HTML – Head	<title></title> used to provide a page title	1	HTML – Head	<meta name = “keywords” content=“skateboarding”	1	HTML – Head	Uses an external style sheet	1	HTML – Body	At least one HTML5 semantic element used to define part of the page: <header> <nav> <section> <article> <footer>	1	CSS	The width of the page is set to 1024px and Left margin of the page is set to 20px Right margin of the page is set to 20px	1	CSS	Arial, Helvetica, sans-serif used for all text	1	CSS	Header, footer and logo link background (nav) set to Navy (#000080)	1	CSS	Lesson text is White (#ffffff)	1	HTML – Body and CSS	One item positioned as shown on wireframe	1	HTML – Body and CSS	At least 3 items positioned as shown on wireframe	1	HTML – Body	A functioning internal link is included to lessonPage.html	1	HTML – Body	The image slider is included on the page and all four of the provided images slide. Award the mark if the image slider is not positioned as shown on the wireframe	1	HTML – Body	Text information inserted as an iFrame Do not award if iFrame has a border	1	CSS	Copyright is horizontally centred within the footer	1	20
Evidence found in:																																															
HTML – Head	<title></title> used to provide a page title	1																																													
HTML – Head	<meta name = “keywords” content=“skateboarding”	1																																													
HTML – Head	Uses an external style sheet	1																																													
HTML – Body	At least one HTML5 semantic element used to define part of the page: <header> <nav> <section> <article> <footer>	1																																													
CSS	The width of the page is set to 1024px and Left margin of the page is set to 20px Right margin of the page is set to 20px	1																																													
CSS	Arial, Helvetica, sans-serif used for all text	1																																													
CSS	Header, footer and logo link background (nav) set to Navy (#000080)	1																																													
CSS	Lesson text is White (#ffffff)	1																																													
HTML – Body and CSS	One item positioned as shown on wireframe	1																																													
HTML – Body and CSS	At least 3 items positioned as shown on wireframe	1																																													
HTML – Body	A functioning internal link is included to lessonPage.html	1																																													
HTML – Body	The image slider is included on the page and all four of the provided images slide. Award the mark if the image slider is not positioned as shown on the wireframe	1																																													
HTML – Body	Text information inserted as an iFrame Do not award if iFrame has a border	1																																													
CSS	Copyright is horizontally centred within the footer	1																																													

	0	1	2	3	Mark
Adherence to component layout design	No rewardable content	There is little adherence to the component layout design, leading to a solution that is not fit for purpose or is not suitable for the intended audience.	An attempt to adhere to the component layout design leads to a solution that is, in parts, fit for purpose and is, in parts, suitable for the intended audience.	The webpage fully adheres to the component layout design and style requirements. The resulting solution is fit for purpose and is suitable for the intended audience.	3
Application of CSS to control presentation		There is little attempt to make use of the facilities of CSS to control appearance and style. Most components rely on default configuration.	An attempt has been made to use CSS to control the appearance and style of some components. This has been successful in some cases.	Consistent and accurate application of CSS is used throughout to control the appearance and style of all components.	3

Question number	Answer	Mark																																										
5	<p>Award one mark for each of the following points up to a maximum of fifteen marks.</p> <p>Award up to a maximum of nine marks for the Functionality, user interface design, use of notation, using the levels based mark scheme below.</p> <table border="1" data-bbox="347 528 1284 1496"> <thead> <tr> <th></th> <th></th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>Survey.html</td> <td>Adding a component for making multiple selections from a set of three options (e.g. checkboxes).</td> <td>1</td> </tr> <tr> <td></td> <td>Three options must belong to the same named group (name="tricks").</td> <td>1</td> </tr> <tr> <td></td> <td>Presence check on email implemented.</td> <td>1</td> </tr> <tr> <td></td> <td>Mobile length checked, only if mobile is provided.</td> <td>1</td> </tr> <tr> <td></td> <td>Error messages for errors: email blank, mobile wrong length.</td> <td>1</td> </tr> <tr> <td></td> <td>Calculates the correct number of tricks.</td> <td>1</td> </tr> <tr> <td></td> <td>Display contents of one or more text input fields.</td> <td>1</td> </tr> <tr> <td></td> <td>Display total number of tricks (iterating over check box group "tricks").</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>Index.html</td> <td>Modal box displays automatically when page is loaded.</td> <td>1</td> </tr> <tr> <td></td> <td>Selecting No closes modal box.</td> <td>1</td> </tr> <tr> <td></td> <td>Selecting Yes closes modal box and opens survey.</td> <td>1</td> </tr> <tr> <td></td> <td>Selecting Yes closes modal box and opens survey.</td> <td>1</td> </tr> </tbody> </table>			Marks	Survey.html	Adding a component for making multiple selections from a set of three options (e.g. checkboxes).	1		Three options must belong to the same named group (name="tricks").	1		Presence check on email implemented.	1		Mobile length checked, only if mobile is provided.	1		Error messages for errors: email blank, mobile wrong length.	1		Calculates the correct number of tricks.	1		Display contents of one or more text input fields.	1		Display total number of tricks (iterating over check box group "tricks").	1				Index.html	Modal box displays automatically when page is loaded.	1		Selecting No closes modal box.	1		Selecting Yes closes modal box and opens survey.	1		Selecting Yes closes modal box and opens survey.	1	20
		Marks																																										
Survey.html	Adding a component for making multiple selections from a set of three options (e.g. checkboxes).	1																																										
	Three options must belong to the same named group (name="tricks").	1																																										
	Presence check on email implemented.	1																																										
	Mobile length checked, only if mobile is provided.	1																																										
	Error messages for errors: email blank, mobile wrong length.	1																																										
	Calculates the correct number of tricks.	1																																										
	Display contents of one or more text input fields.	1																																										
	Display total number of tricks (iterating over check box group "tricks").	1																																										
Index.html	Modal box displays automatically when page is loaded.	1																																										
	Selecting No closes modal box.	1																																										
	Selecting Yes closes modal box and opens survey.	1																																										
	Selecting Yes closes modal box and opens survey.	1																																										

Award up to a maximum of **nine** marks for the functionality, user interface design, use of notation, using the levels based mark scheme below.

Topic area	0	1	2	3	Mark
<p>Appropriate functionality:</p> <ul style="list-style-type: none"> • components and code have been decomposed into appropriate parts • dynamic behaviours are implemented in JavaScript. 	<p>The component parts of the program are incorrect or incomplete, providing a program of limited functionality that meets some of the given requirements.</p> <p>Mostly inappropriate logic used.</p>	<p>The component parts of the program are complete, providing a functional program that meets some of the given requirements.</p> <p>Some parts of the logic are clear and mostly appropriate to the problem.</p>	<p>The component parts of the program are complete, providing a functional program that fully meets the given requirements.</p> <p>The logic is clear and appropriate to the problem.</p>	3	
<p>Appropriate interface design:</p> <ul style="list-style-type: none"> • error messages and other status reports • Interactivity between JavaScript and HTML 	<p>The design of the user interface lacks consideration for fitness for purpose and the intended audience.</p>	<p>The design of the user interface is in parts fit for purpose and addresses some of the needs of the intended audience.</p>	<p>The design of the user interface is fully fit for purpose and suitable for the intended audience.</p>	3	

Topic area	0	1	2	3	Mark
<p>Appropriate use of notation:</p> <ul style="list-style-type: none"> • Presentation of JavaScript ensures clear readability • comments provide clarity. 		<p>Uses programming constructs and techniques to produce some required outcomes in the code.</p> <p>Uses data types that are rarely appropriate to the problem.</p> <p>Limited use of accurate syntax.</p> <p>Limited appropriate use and manipulation of data structures.</p> <p>Some use of meaningful variable names with limited or unhelpful commenting.</p> <p>Parts of the code are clear and readable but much of it makes limited use of appropriate spacing and indentation.</p>	<p>Uses programming constructs and techniques to produce most of required outcomes in the code.</p> <p>Uses data types, some of which are appropriate to the problem.</p> <p>Uses mostly accurate syntax.</p> <p>Accesses and manipulates data structures to produce mostly correct results and/or outcomes.</p> <p>Uses mostly meaningful variable names, with some use of appropriate commenting.</p> <p>Code is mostly clear and readable, making some use of appropriate spacing and indentation.</p>	<p>Accurate programming constructs and techniques are used.</p> <p>Appropriate data types are selected.</p> <p>Accurate syntax is used.</p> <p>Data structures are accessed and manipulated efficiently.</p> <p>Meaningful variable names and comments are used throughout.</p> <p>Code is clear and readable, making effective use of appropriate spacing and indentation.</p>	3

Question number	Indicative content	Mark
6	<p>Semantic Web</p> <ul style="list-style-type: none"> • Web of data that can be processed by machines. • When tags are used appropriately and consistently, algorithms can determine the intentions of the page designer. • Screen readers can make use of these special tags to change language or expressiveness. <p>Requirements</p> <ul style="list-style-type: none"> • HTML5 tags should be used in a standard and meaningful way. • HTML5 tags such as <header>, <footer>, <nav>, and express the designer’s intention. • Old-style general-purpose tags, such as <div> relay intention but not structure. • Pre-installed browsers on smartphones support HTML5 tags. <p>Page status</p> <ul style="list-style-type: none"> • This page uses a mixture of old style HTML tags (<div>) and new HTML5 tags (<header>, <section>, <article>). • The <meta> tag, viewport is included which indicates conformity to mobile devices. • This page meets some of the requirements of the Semantic Web. <p>Suggestions</p> <ul style="list-style-type: none"> • Each <div> tag could be replaced by one of the HTML5 tags which is more meaningful. • The <div> on lines 13-17 could be replaced by <nav> which indicates that these components are navigational links. • The <div> on lines 24-26 could be replaced by <section> which indicates that these are at the same level as the other sections. • The <div> on lines 28-20 could be replaced by <footer> which indicates that it is the footer section. • Improve the use of <meta> tag data to include more appropriate keywords for search engines. • Incorporate the use of <alt> tags on images to make the page more accessible by those with disabilities. 	9

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	<ul style="list-style-type: none"> • Analysis is flawed or superficial, containing simple statements that show limited understanding of the subject matter. • Solution may contain some aspects that are appropriate, but is generally ineffective.
Level 2	4-6	<ul style="list-style-type: none"> • Analysis is sound, containing minor inaccuracies or omissions, showing some understanding of the given issue. • Solution is workable but may have minor issues.
Level 3	7-9	<ul style="list-style-type: none"> • Analysis is sound and developed, containing ideas that are linked together in a fluent and logical way, showing a thorough understanding of the given issue. • Solution is appropriate and workable.