



# Mark Scheme (Results)

Summer 2024

Pearson Edexcel International Advanced  
Subsidiary/Advanced Level  
In Information Technology (WIT12/01)  
Unit 2

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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.

**Unit 2406 - Mark Scheme WIT12**

Question number	Answer	Additional guidance	Mark
<b>1 (a)(i)</b>	Award <b>one</b> mark for any of the following: <ul style="list-style-type: none"> <li>• Helps <b>search engines / browsers</b> show the right results to users from different countries (1)</li> <li>• Allows <b>online readers / screenreaders / browsers</b> to change language (1)</li> <li>• So the <b>browser</b> can display the content in a different language correctly (1)</li> </ul>	Must be about the use of text/spoken languages  Do not award coding languages	<b>1</b>
<b>1 (a)(ii)</b>	Award <b>one</b> mark for any of the following: <ol style="list-style-type: none"> <li>1. Use lowercase letters within element names/tags/values/attributes/variables (1)</li> <li>2. Use appropriate/meaningful ID/class names/variables (1)</li> <li>3. Use double quotes (1)</li> <li>4. Omit the values on Boolean attributes (1)</li> <li>5. Remove the forward slash at the end of self-closing elements (1)</li> <li>6. Include comments to explain the HTML where helpful (1)</li> <li>7. Use closing tags (1)</li> <li>8. (White) space \ new line left between separate (block level) elements (1)</li> <li>9. Use separate files for CSS/JavaScript and link (1)</li> <li>10. Starting a block-level element on a new line (1)</li> <li>11. Use semantic elements \ IDs \ classes (1)</li> </ol>	Do not award indenting nested elements as given in the question  Must be about organising the code not what the page looks like	<b>1</b>

Question	Answer	Additional	Mark
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Question number	Answer	Additional guidance	Mark
2 (a)	<p>Award <b>two</b> marks for a linked explanation such as:</p> <ul style="list-style-type: none"> <li>• The changes would need to be made on the style sheet on every web page / only apply to a single webpage (1) rather than once on the external style sheet (1)</li> <li>• Changes made may not be consistent across the site (1) because updating individual internal style sheets may introduce errors (1)</li> <li>• Internal style sheets include the CSS and HTML in one file, which may make it harder to find the code to change (1) whereas external the CSS is in a separate file so should be easier to find the code to change (1)</li> </ul>		<b>2</b>

Question number	Answer	Additional guidance	Mark
2(b)	<p>Award <b>two</b> marks for a linked description such as:</p> <ul style="list-style-type: none"> <li>• The text will have a black background and white text (1) for the paragraphs on lines 18 and 23 <b>only</b> / Forest Gump and Apollo 13 <b>only</b> (1)</li> <li>• The <b>next siblings</b> after the divs (1) have a black background and white text (1)</li> <li>• The paragraphs outside of the divs (1) will have a black background and white text (1)</li> </ul>		<b>2</b>



Question number	Answer	Additional guidance	Mark
2 (d)	Award <b>one</b> mark for each of:	Border must be formatted using CSS  Border may be any style so long as it displays as a black border	4
	D1 border: 3px (1)		
	D2 border: solid (black) (1)		
	D3 controls (1)		
	D4 loop (1)		
Sample code <pre data-bbox="304 395 1256 954">           <code>             /* Add CSS code here */             border: 3px solid;           }           &lt;/style&gt;           &lt;/head&gt;           &lt;body&gt;            &lt;!--Amend the HTML code --&gt;           &lt;video controls loop&gt;             &lt;source src="video.mp4" type="video/mp4"&gt;           &lt;/video&gt;           </code> </pre>			

Question number	Answer	Additional guidance	Mark						
3 (a)(i)	Award <b>one</b> mark for each correct cell: <table border="1" data-bbox="680 248 1263 360" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Variable</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>i</td> <td>4 (1)</td> </tr> <tr> <td>name</td> <td>Mobin (1)</td> </tr> </tbody> </table>	Variable	Value	i	4 (1)	name	Mobin (1)		<b>2 E</b>
Variable	Value								
i	4 (1)								
name	Mobin (1)								
3 (a)(ii)	Award <b>one</b> mark for each of: <ul style="list-style-type: none"> <li>• Array declared with an appropriate name e.g. peopleArray = [ ] (1)</li> <li>• Array contents correct e.g.               <ul style="list-style-type: none"> <li>○ ["Caroline", 15], ["Paul", 17]</li> <li>○ ["Caroline", "15"], ["Paul", "17"] (1)</li> </ul> </li> </ul> <p>Example</p> <pre>peopleArray = ["Caroline", "15"], ["Paul", "17"] peopleArray = ['Caroline', '15'], ['Paul', '17'] peopleArray = ["Caroline", 15], ["Paul", 17]</pre>	Accept spelling mistakes different values for the array values but must be surrounded by quotes and use commas correctly	<b>2</b>						

Question number	Answer	Additional guidance	Mark	
<b>3 (b)</b>	Award <b>one</b> mark for each of:		<b>3</b>	
	B1			Check to see if the right edge of the page has been reached (1)
	B2			Resets position (1)
	B3			Moves to the right by 10 pixels (1)
	<p>Sample code:</p> <pre data-bbox="300 363 1621 767"> 27     function moveRight(){ 28         // Add code here 29         if (balloonObject.style.left == "100px"){ 30                 initialPosition() 31         } 32         else { 33                 balloonObject.style.left = parseInt(balloonObject.style.left) + 10 + 'px' 34         } 35 36         // Do not change the code below here 37     } </pre> <pre data-bbox="300 810 1644 1155"> function moveRight(){     // Add code here     var windowWidth=window.innerWidth     var balloonObjectWidth=balloonObject.clientWidth+parseInt(balloonObject.style.left)     if(windowWidth&gt;balloonObjectWidth){             balloonObject.style.left=parseInt(balloonObject.style.left)+10+"px"     }else{             initialPosition()     } } </pre>			



Question number	Answer	Additional guidance	Mark
3 (d)	Award <b>one</b> mark for a linked description such as: <ul style="list-style-type: none"> <li>When the age field is <b>entered</b> / when the user clicks <b>in</b> the age field / when the age is input (1) the background of the <b>age</b> field/<b>pAge</b> element is changed to yellow (1)</li> </ul>	Not looking for an onclick, looking for onfocus	2

Question number		Answer	Additional guidance	Mark
4	<b>Evidence found in</b>			
	A1	HTML - Head	Uses an external style sheet	1
	A2	HTML - Body	At least one HTML5 semantic element used to define part of the page: <header> <nav> <section> <article> <footer>	1
	A3	CSS	Article text is justified Heading <b>Meet our authors</b> is centred Footer text is centred	1
	A4	CSS	Colour set appropriately for at least one of: <b>Backgrounds</b> <ul style="list-style-type: none"> <li>header, footer – black (#000000)</li> <li>navigation button – dark gray ((#A9A9A9)</li> </ul> <b>Font colours</b> <ul style="list-style-type: none"> <li>header, footer – white (#FFFFFF)</li> </ul>	1
	A5	HTML Body	Events added with external hyperlink to events.html	1
	A6	CSS	Hyperlink has white (#FFFFFF) text and no underline Hyperlink changes to black (#000000) text on hover	1
	<b>Below 600 pixels</b>			
A7	CSS	<b>Font size (at least 3 from)</b> Header – 30 pixels Heading <b>Meet our authors</b> –22 pixels Article – subheadings 20 pixels		1

			Navigation button, article text, footer – 14 pixels		
A8	CSS		Logo - Width 50 pixels <b>OR</b> Header height – 90 pixels		1
A9	CSS		Navigation button <ul style="list-style-type: none"> <li>• width 80 pixels</li> <li>• height 40 pixels</li> </ul>		1
A10	CSS		Author images set to 60% the width of page		1
A11	CSS		Both author images are centred	Need to see working in the browser	1
<b>600 pixels and over</b>					
A12	CSS		<b>Font size (at least 3 from)</b> Header – 50 pixels Heading <b>Meet our authors</b> –44 pixels Article – subheadings 36 pixels Navigation button, article text, footer – 24 pixels		1
A13	CSS		Header height – 150 pixels  Logo width – 100 pixels  <b>Navigation button</b> Width 100 pixels Height 50 pixels  Width of images set to 300 pixels		1
A14	CSS		Logo float right Image 1 floated left of paragraph 1 Image 2 floated right of paragraph 2	No overlapping any other content  Footer section must be below the image and paragraph  Need to see working in the browser	1

Award up to a maximum of <b>six</b> marks for the adherence to the component layout and the application of CSS using the levels based mark scheme below.					
Topic Area	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>Mark</b>
Adherence to component layout design	No awardable 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
<b>Total mark for question 4</b>					<b>20</b>

Question number	Answer			Mark	
5	Award <b>one</b> mark for each of the following points up to a maximum of <b>11</b> marks.			20	
					<b>Marks</b>
	<b>zoom.html</b>	<b>zoom function</b>			
	A1	Check for zoom in <b>AND</b> Check for zoom out <b>through the use of parameters</b>			1
	A2	Check to see if the new height is under the maximum height <b>OR</b>			1
		Check to see if the new height is over the minimum height			
	A3	Height increased by 100 pixels <b>OR</b> Height decreased by 100 pixels			1
	A4	Height increased by 100 pixels only if appropriate <b>OR</b>			1
		Height decreased by 100 pixels only if appropriate			
	<b>changeImage function</b>				
	A5	Displayed image is swapped on each click			1
	<b>author.html</b>	<b>saveAuthor function</b>			
	A6	Last name input stored in appropriate variable			1
A7	authorID displayed in author paragraph <b>OR</b>		1		
	last name displayed in last name paragraph				
A8	authorForm hidden		1		
A9	Display div visible		1		
<b>editAuthor function</b>					
A10	Author form displayed		1		
A11	Display div hidden		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"> <li>• components and code have been decomposed into appropriate parts</li> <li>• dynamic behaviours are implemented in JavaScript.</li> </ul>		<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"> <li>• error messages and other status reports</li> <li>• Interactivity between JavaScript and HTML</li> </ul>		<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"> <li>• presentation of JavaScript ensures clear readability</li> <li>• comments provide clarity.</li> </ul>		<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
<b>Total mark for question 5</b>					<b>20</b>

## Sample Zoom code

```
// This gets the current height of the image
var height = image.clientHeight;

/* Add your code here to zoom in and zoom out.
Do not zoom out below the minimum height.
Do not zoom in above the maximum height */
if (direction == "in"){
    var newHeight = height + 100
    if (newHeight <= 1000 ){
        image.style.height = height + 100 + "px"
    }
}else{
    var newHeight = height - 100
    if (newHeight > 100 ){
        image.style.height = height - 100 + "px"
    }
}
}
```

```
// Add your code here to swap the image
if (filename === "1.jpg"){
    image.src = "2.jpg"
} else {
    image.src = "1.jpg"
}
```

## Sample Author code

```
// Add code to store the last name that has been input in a variable
lastName=document.getElementById("inputLastName").value

// Add your code here for the display
document.getElementById("authorForm").hidden = true
document.getElementById("output").hidden = false
document.getElementById("author").innerHTML = "Author ID: " + authorID
document.getElementById("lastName").innerHTML = "Last name: " + lastName
} // End of function saveAuthor

function editAuthor(){
    // Add your code here to hide and show elements appropriately
    document.getElementById("authorForm").hidden = false
    document.getElementById("output").hidden = true

    // Do not change code below here
```

Question number	Indicative content	Mark
6	<p><b>Analysis and Recommendations</b></p> <p>Before the review can be saved</p> <ul style="list-style-type: none"> <li>• each input must be validated to ensure it is present</li> <li>• the name must be validated to ensure it is at least 3 characters</li> <li>• the age must be validated to ensure it is 16 or over</li> <li>• the book rating must be validated to ensure it is between 1 and 5 inclusive</li> </ul> <p>HTML form elements used would be:</p> <ul style="list-style-type: none"> <li>• The form would include: <ul style="list-style-type: none"> <li>○ a text input element for the user's name</li> <li>○ a number input element for the user's age</li> <li>○ a select element for the book the review is for with an option element for each book</li> <li>○ a textarea element for the review comments</li> <li>○ a radio group for the book rating</li> <li>○ a submit button to trigger the save process</li> </ul> </li> </ul> <p>Some of the data would be validated by the element choice:</p> <ul style="list-style-type: none"> <li>• using a number input element would ensure only a number can be input</li> <li>• using select and option elements for the book would ensure the user could only select a valid book</li> <li>• using a radio group from the book rating would ensure the user can only select a valid rating and it would be further validated to ensure only one option can be selected</li> </ul> <p>JavaScript would be used for further validation when the save button is clicked. This validation would include checking that:</p> <ul style="list-style-type: none"> <li>• there is input present for each element</li> <li>• the length of the name is at least 3 characters long</li> <li>• the age is at least 16</li> <li>• the book rating is between 1 and 5 inclusive</li> </ul>	9

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

Level 3	7-9	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Solution is appropriate and workable.</li> </ul>	
		<b>Total for question 6</b>	<b>9</b>
		<b>Total written marks</b>	<b>25</b>

