Mark Scheme (Results)

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Pearson Edexcel International Advanced Subsidiary
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.

Theory Questions

Question number	Answer	Additional guidance	Mark
1 (a)	Award **one** mark for any of: • Sectioning (1) • Heading (1) • Phrasing (1) • Embedded (1) • Interactive (1) • Metadata (1) • Palpable (1) • Form-associated (1) • Transparent (1) • Universal (1)	Do not award flow.	1

Question number	Answer	Additional guidance	Mark
1 (b)(ii)	Award **one** mark for each of: • Adding a hyperlink <a> and (1) • Correct filename href="sailing.html" (1) • Anchor #yachts follows filename (1) • Link is Find out more (1) Correct code is: Find out more		4

Question number	Answer	Additional guidance	Mark
1 (c)	Award **two** marks for a linked explanation such as: • Tag represents an HTML element (1) whereas an HTML attribute defines a property for an element (1) • Tag used to mark up the start and end of an HTML element (1) whereas an attribute describes the characteristics of an HTML element (1) • A tag is an object (1) and an HTML attribute is an object's property (1) • A tag is used for structural content (1) whereas an HTML attribute may be used to modify the properties of that content (1) • A tag encapsulates an element (1) whereas attributes provide property values of that element (1)		**2**
		Total mark for question	**9**

Question number	Answer	Additional guidance	Mark
2(a)	Award **one** mark for any of: • Type (1) • Class (1) • ID (1) • Universal (1) • Attribute (1) • Descendant (1) • Adjacent sibling (1) • General sibling (1) Accept any other valid selector		1

Question number	Answer	Additional guidance	Mark
2(b)	Award **two** marks for a description such as: (The code) will change the font to Times New Roman (1) for the p element within the header (1) (The code) will change the font style (1) of Sailing boat holidays (1)	Do not allow font on its own. Font style or Times New Roman.	2

Question number	Answer	Additional guidance	Mark
2(e)	Award **two** marks for a description such as: A margin is the space around an element outside of defined borders (1) padding is the space around the element's content inside of defined borders (1)		2
		Total mark for question	11

Question number	Answer	Additional guidance	Mark
3 (a)	Award **two** marks for a linked explanation such as: • A check for less than 50 marks has not been included (1) between the check for less than 40 marks and less than 60 marks (1) • A mark for 40 is less than 60 so the first else returns true (1). Another else statement needs to be added – if mark < 50 then give E grade (1)		**2**

Question number	Answer	Additional guidance	Mark
3 (d)(i)	Award **one** mark for any relevant event, e.g. mouse click OR a description of an event, e.g. events are things that happen within the scope of the browser (1)		**1**
3(d)(ii)	Award **one** mark for any relevant purpose: • Event handlers dictate what happens when an event takes place (1) • Event handlers detect and respond to an event (1) • To capture actions that are used to trigger events or code (1) • To allow interactivity between HTML and JavaScript (1) To allow interactivity between HTML and JavaScript (1)		**1**
		Total mark for question	**11**

Question number	Indicative content	Mark
6	**Should be identifying factors they think are important** For example • Many devices of different sizes are used to access site with mobile/tablet being used the most. • Users will want a good experience, or they will leave the website. *Consideration and significance* **Fixed layout design** Fixed design has a specific width and does not scale to fit the browser window. • Designer would have full control over how an element will look for example floating images next to text • Would be easier for the designer to place the elements exactly where he/she wants them to be • Would be easy to create identical looking webpages • May end up with scroll bars which impact on user experience and usability • Tables could behave erratically on different sized screens • Have no way of knowing what the website will look like on all devices so could end up not being able to see some of the content or may end up seeing a lot of white space after the max width of the pages • Takes control away from the user, they get what they are given **Liquid layout design** Fills the entire browser window by using percentages/ems rather than pixel values to define sizes. • Will adjust to fill a variety of resolutions. • Can be more accessible than fixed layout e.g. users with poor eyesight can more easily resize the text or many become hard to read on high resolutions as a column of text can become very wide. • Minimises the need for scrolling on different resolutions • Lose a certain amount of control over how everything will look at different resolutions e.g. could end up with overlapping text and image. • Better than a fixed design taking into account the results of the research but would not be able to have a specific layout for a particular screen size/type of screen.	9

| | | **Responsive design**
Uses breakpoints to present different layouts based on screen sizes/types of screen.
• Elements stretch or shrink automatically according to the breakpoints
• Provides custom experience for each of the breakpoints
• Can combine liquid layout design (e.g. percentages) and fixed layout design (e.g. fixed widths for images at particular breakpoints) so that layout responds to different resolutions between each breakpoint
• Better than either fixed layout or liquid layout alone taking into account the results of the research. | |

Level	Mark	Descriptor
	0	No rewardable material
Level 1	1-3	• Applies understanding with limited coherence, showing limited understanding of the given issue. • Assessment of solution is superficial or unbalanced, and judgements lack support from evidence.
Level 2	4-6	• Applies understanding to make some coherent connections, showing some understanding of the given issue. • Assessment of solution is partially developed, but this may be unbalanced, using evidence to support some judgements.
Level 3	7-9	• Applies understanding coherently, showing a thorough understanding of the given issue. • Assessment of solution is balanced and developed, using evidence to support judgements throughout.
		Total for question 9

Coding Questions

Question number	Answer	Additional guidance	Mark
1 (b)(i)	Award **one** mark for each correction up to a maximum of **two** marks. • none changed to no (1) • incorrect spelling of src filename amended to iframeText.html (1) Correct code is: `<iframe scrolling="no" src="iframeText.html" title="Why sail?"></iframe>`		**2**

Question number	Answer	Additional guidance	Mark
| **2 (c)** | Award **one** mark for using the border-radius setting and **one** mark for setting the transition properties.<br><br>• border-radius: 50% / border-radius: 300px (1)<br>• transition: 1s (1)<br><br>Sample code is:<br><br>```css
.shape:hover {
    /* Add your code here */
    border-radius: 50%;
    transition: 1s;
}
``` | Minimum border-radius 50% or 300px | **2** |

Question number	Answer	Additional guidance	Mark

2 (d)	Award **one** mark for each of:
	
	• img - border set to 3px (1)
	• img - border set to solid OR solid black OR solid #000000 or border-color set to black/#000000 (1)
	• sticky note - background colour set to yellow (1)
	• rotate - 7 degree rotation. (1)
	
	Sample code
	
	img
	
	``
	/* Add your code here to create a border */
	border:3px solid #000000;
	``
	
	sticky_note
	
	``
	/* Add your code here to set the background */
	background-color: #FEFE33;
	``
	
	rotate
	
	``
	/* Add your code here to rotate the sticky note */
	transform: rotate(7deg);
	``
		Must be formatted using CSS styling where indicated	4

Question number	Answer	Additional guidance	Mark
3 (b)	Award **one** mark for each of: • Highest mark calculated (1) • Total marks calculated (1) • Average marks calculated (1) **Mark Analysis** | Lowest Mark	Highest Mark	Average Mark
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37	80	58 |
		
		Example code:
		
		Highest mark
		
		``
		// Add code to generate the highest mark
		highest = Math.max(...markArray)
		``
		
		Average marks
		
		``
		// Add code to generate the average mark
		for (count = 0; count < markArray.length; count ++){
		    total += markArray[count]
		}
		average = total / markArray.length
		``
			Allow follow through if total is incorrect	3

https://xtremepape.rs/

Question number	Answer	Additional guidance	Mark
3 (c)	Award **one** mark for each of: • checkGuess function called when the button is clicked (1) • Condition to check whether guess matches seconds (1) • Display 'You guessed incorrectly.........message including concatenation of the guess (1) • button disabled (1) Example code:		4

```html
<!-- Add your code to call the checkGuess function when the button
<button id="guessButton" onclick="checkGuess()">Guess</button>
```

```javascript
if (secondsPassed == secondsToGuess){
  document.getElementById("message").innerHTML="You guessed correctly"
} else {
  document.getElementById("message").innerHTML="You guessed incorrectly at " +
    secondsPassed + " seconds. Game over."
}
document.getElementById("guessButton").disabled = true
```

Question number	Answer			Additional guidance	Mark
4	Award **one** mark for each of the following points up to a maximum of **fourteen** marks.				**20**
	Evidence found in				
	HTML – Head	A1	Uses an external style sheet		1
	HTML – Body	A2	At least one HTML5 semantic element used to define part of the page: <header> <nav><section> <article> <footer> <main>		1
	CSS	A3	Content text is justified		1
	HTML – Body	A4	2 column, 5 row table inserted with correct text		1
	CSS	A5	Colour set appropriately for at least one of: header, footer – black (#000000) subheader – light blue (#BFEFFF) button – grey (#BEBEBE) table header – dark grey (#A9A9A9) table contents – grey (#BEBEBE) 'We Love Sailboats' – white (#FFFFFF) footer – white text (#FFFFFF)		1
	HTML – Body CSS	A6	Book Now added with external hyperlink to booking_form.html		1
	CSS	A7	Hyperlink has black text and no underline		1
	CSS	A8	Hyperlink would change to white text on mouse hover		1
	HTML – footer / CSS	A9	'Whatever you want, we can provide' emboldened		1
	Below 600 pixels				
	CSS	A10	Subheader text centre aligned		1
	CSS	A11	Staff and island images set to 100% width of page		1
	600 pixels and over				

	CSS	A12	'We Love Sailboats' is right aligned		1
	CSS	A13	Content images width 50%		1
	CSS	A14	Image 1 floated left of friendly staff paragraph or Image 2 floated right of the locations paragraph		1

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.					
Topic Area	0	1	2	3	Mark
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
				Total mark for question	**20**

Question number	Answer				Mark
5	Award **one** mark for each of the following points up to a maximum of **11** marks.				20
				Marks	
	review.html	A1	reviewComments variable assigned value from form 'comments' ID	1	
		A2	Check if email address OR review comments are present	1	
		A3	Generated error message would be specific to error	1	
		A4	Email address, formatted date and review comments added to array	1	
		A5	Form hidden	1	
		A6	Total number of reviews calculated	1	
		A7	Total number of reviews OR email address OR formatted date OR review comments displayed in the 'savedReview' paragraph	1	
	staff.html	A8	staffName used in the condition as part of the check	1	
		A9	Condition fully correct (staffName == staffArray[count][0])	1	
		A10	Staff member name OR staff member experience displayed in the 'staffDetails' paragraph	1	
		A11	count incremented	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**
Appropriate functionality: • components and code have been decomposed into appropriate parts • dynamic behaviours are implemented in JavaScript.		The component parts of the program are incorrect or incomplete, providing a program of limited functionality that meets some of the given requirements. Mostly inappropriate logic used.	The component parts of the program are complete, providing a functional program that meets some of the given requirements. Some parts of the logic are clear and mostly appropriate to the problem.	The component parts of the program are complete, providing a functional program that fully meets the given requirements. The logic is clear and appropriate to the problem.	3
Appropriate interface design: • error messages and other status reports • Interactivity between JavaScript and HTML		The design of the user interface lacks consideration for fitness for purpose and the intended audience.	The design of the user interface is in parts fit for purpose and addresses some of the needs of the intended audience.	The design of the user interface is fully fit for purpose and suitable for the intended audience.	3

Topic area	0	1	2	3	Mark
Appropriate use of notation: • presentation of JavaScript ensures clear readability • comments provide clarity.		Uses programming constructs and techniques to produce some required outcomes in the code. Uses data types that are rarely appropriate to the problem. Limited use of accurate syntax. Limited appropriate use and manipulation of data structures. Some use of meaningful variable names with limited or unhelpful commenting. Parts of the code are clear and readable but much of it makes limited use of appropriate spacing and indentation.	Uses programming constructs and techniques to produce most of required outcomes in the code. Uses data types, some of which are appropriate to the problem. Uses mostly accurate syntax. Accesses and manipulates data structures to produce mostly correct results and/or outcomes. Uses mostly meaningful variable names, with some use of appropriate commenting. Code is mostly clear and readable, making some use of appropriate spacing and indentation.	Accurate programming constructs and techniques are used. Appropriate data types are selected. Accurate syntax is used. Data structures are accessed and manipulated efficiently. Meaningful variable names and comments are used throughout. Code is clear and readable, making effective use of appropriate spacing and indentation.	3
				Total mark for question	**20**

review.html

```javascript
function addReview(){
 var emailAddress = document.getElementById("emailAddress").value

 // Add your code to store the form comments in the reviewComments variable
 var reviewComments = document.getElementById("comments").value

 /* Add your code to:
    Check that an email address has been input
    Check that comments have been input
    Display a suitable error message in the 'error' paragraph */
 if (emailAddress.length < 3) {

     document.getElementById("error").innerHTML = "You must input an email address
     "

 } else if (reviewComments.length < 1) {

     document.getElementById("error").innerHTML = "You must input a review"

 } else {
     // Today's date generated
     var today = new Date()

     // Current month generated
     var month = today.getMonth() + 1

     // Date formatted
     var dateToStore = today.getDate() +"/"+ month +"/"+today.getFullYear()

     /* Add your code to:
         Add the email address, formatted date and review comments to the array
         Hide the form
         Calculate the total number of reviews in the array
         Display (in the saved review paragraph) the total number of reviews and
         saved review.
     */
```

```javascript
     reviewArray.push([emailAddress, dateToStore, reviewComments])
     document.getElementById("reviewDetails").style.display="none"
     var arrayLength = reviewArray.length - 1
     var reviewDisplay = "Total reviews: " + arrayLength + "<br>"
     reviewDisplay += "Email address: " + emailAddress + "<br>"
     reviewDisplay += "Date: " + dateToStore + "<br>"
     reviewDisplay += "Review comments: " + reviewComments
     document.getElementById("savedReview").innerHTML = reviewDisplay
     }
   }
 </script>
 </head>
 <body>
   <h2>Review details</h2>
   <form id="reviewDetails">
     <p><label for="emailAddress">Email *:</label>
     <input type="text" id="emailAddress"></p>
     <p><label for="comments">Review *:</label></p>
     <p><textarea id="comments"></textarea></p>
     <p id="error" ></p>
     <p><input type="button" onclick="addReview()" value="Submit"></p>
   </form>
   <p id="savedReview"></p>
 </body>
 </html>
```

staff.html

```javascript
    while (count < staffArray.length && found == false) {
      /* Add your code to:
          find the staff member in the array whose image has been clicked
          display the staff member name and experience in the 'staffDetails' paragraph
      */
      if (staffArray[count][0] == staffName){
        found = true
        details = "This is " + staffName + ".<br>" + staffArray[count][2]
        document.getElementById("staffDetails").innerHTML = details
      }
      count ++
    }
  }
```