Accredited

Computing

GCSE

COMPUTING – J275

Sample Material B3

A452

www.ocr.org.uk/computing

OCR
Oxford Cambridge and RSA

Disclaimer on use of Sample Material

Confidentiality

These tasks are taken from legacy Controlled Assessment tasks, undertaken and submitted by candidates. Where possible, we have removed all identifying information from these assessments. Should any data remain, you are requested to treat this confidentially and inform OCR as soon as possible highlighting the data concerned.

Use of URS Sheets and Sample Material

These tasks have all been moderated as part of the relevant exam series in which they were submitted and the marks submitted have all been allowed to stand. However, schools should bear in mind that this only indicates that the **overall assessment** of the Controlled Assessment is within tolerance and not necessarily each individual mark band. There may be instances where the mark scheme has been applied too generously, or similarly too harshly. This would have been identified in the reports to the centre – but will not be evident from URS alone. The spirit of the release of these samples is to give teachers better understanding of what High, Medium and Low graded coursework would feel like as an entity, rather than exact definitions of requirements for mark bands independently.

The provision of high graded does **not infer** that this is the only, or best way of writing up a Controlled Assessment Task. Candidates are encouraged to map their personal journey through the tasks. Writing frames, or 'guides' for documentation are against the spirit of the coursework and constitute malpractice.

Each set of materials released contains a High, Middle and Low grade band. This should allow teachers to gain good understanding of the general standard of work quality required for each mark band, and as a whole – especially when comparing each set side by side.

Teachers are encouraged to seek further support when they feel clarification is needed in applying the mark scheme. We would also recommend regular CPD in respect of Controlled Assessment delivery and marking.

Accuracy

All work has, where possible, remained unaltered from the original submission. There may well be grammatical errors and poor layout in diagrams. This is to allow better matching of mark band criteria, where specific bullet points refer to quality of Spelling, Punctuation and Grammar, and also ease of navigation etc. Any significant changes are clearly marked. Some data that is perceived sensitive may be blocked out in black.

GCSE Computing Controlled Assessment

Unit A452 Practical investigation

Unit Recording Sheet

Please read the instructions printed on the other side of this form. **One** of these Unit Recording Sheets, suitably completed, should be attached to the assessed work of **each** candidate.

Unit	**A452**		**Year**	
Centre Name			**Centre Number**	
Candidate Name			**Candidate Number**	

	Guidance			Teacher Comment	Mark
Practical investigation	There may be limited evidence of any practical investigation. The evidence supplied is minimal with limited relevance to the set task. The practical evidence may be largely the result of group or teacher led activity with limited input from the student. 0 = no response or responses not worthy of credit **[0 - 5]**	There is evidence of a practical investigation. The evidence supplied is documented clearly and is relevant to the set task. There is evidence of individual research beyond the group activity and any teacher led activity. The practical investigations show signs of planning but there may be omissions made in assessing the consequences. **[6 - 10]**	There is evidence of a well-structured practical investigation. The evidence supplied is well organised and clearly relevant to the set task. There is extensive evidence of individual practical investigation beyond the group activity and any teacher led activity. The practical investigation shows clear signs of planning and a structured approach, providing a complete investigation of the set topic area. The practical investigation has been carried out with skill and due regard to safety issues. **[11 - 15]**	There is evidence of an investigation and a small number of tasks have been attempted no radio buttons have ben added. The code written is not fully functional e.g. the code will submit with nothing entered	3 **Max 15**

Effective and efficient use of techniques	The techniques used will produce partially working solutions to a small part of the problem. 0 = no response or responses not worthy of credit **[0 - 3]**	The techniques will be used appropriately giving working solutions to most of the parts of the problem. Some parts of the solution may be executed in a partial or inefficient manner. **[4 - 7]**	The techniques are used appropriately in all cases giving an efficient, working solution for all parts of the problem. **[8 - 10]**	Tasks attempted but code is not actual functional due to errors	1 **Max 10**
Technical understanding	The candidate demonstrates a limited understanding of the technical issues related to the scenario. Little detail is presented. There is limited indication of any evidence provided being analysed. There is limited use of technical terminology. 0 = no response or responses not worthy of credit **[0 - 3]**	The candidate demonstrates a reasonable understanding of the technical issues related to the scenario. The amount of detail presented is adequate to support the arguments. There is some analysis carried out on the evidence collected. Technical terminology is for the most part used appropriately. **[4 - 7]**	The candidate demonstrates a thorough and secure understanding of the technical issues related to the scenario. A wide range of relevant and detailed information is presented. The evidence which has been collected is fully analysed. Technical terminology is used correctly. At the top end of the band, this will be extensive and confidently used. **[8 - 10]**	Attempt to demonstrate understanding, but this is not detailed and incomplete, especially with a small number of tasks attempted	2 **Max 10**

Conclusions and evaluation	Conclusions are limited with little justification. The solution is presented with limited evidence of testing. Information may be ambiguous or unclear. There is limited reference to evidence. The evidence of written communication is limited with little or no use of specialist terms. There are many errors in spelling, punctuation and grammar. The evaluation may be simplistic with little or no relevance. 0 = no response or responses not worthy of credit **[0 - 3]**	The material has structure and coherence with justifiable conclusions being reached although there may be some omissions. There is evidence that the solutions have been tested for basic functionality. Candidates have produced a sound evaluation which reviews some aspects of the task. There is evidence of good written communication using some specialist terms. There are few errors in spelling, grammar and punctuation. Specialist terms are used appropriately and for the most part correctly. **[4 – 7]**	Thorough and convincing conclusions have been reached, which are borne out by the research carried out by the candidate. The solutions are fully tested and there is little doubt that the solutions presented are fully functional. This material has been presented in a clear and relevant way which is simple to navigate. A high level of written communication is obvious throughout the task and specialist terms/technology with accurate use of spelling is used. Grammar and punctuation are consistently correct. The evaluation is relevant, clear, organised and presented in a structured and coherent format. **[8- 10]**	There is evidence of an attempt at testing - although the results are not true for this system. Attempt at the final question, with some valid points made	4 **Max 10**
				Total/45	**10**

Guidance on Completion of this Form

1 **One** sheet should be used for each candidate.
2 Please ensure that the appropriate boxes at the top of the form are completed.
3 Using the guidance identify the most appropriate mark range for the work and enter the mark awarded for each element in the mark column.
4 Add appropriate comments to assist the moderator in the 'Teacher Comment' column.
5 Add the marks for the strands together to give a total out of 45. Enter this total in the relevant box.

A452 Javascript

1. Describe how this HTML code produces the form displayed in the browser (fig. 1)

Closing Tag eg.</HTML>
This closes the corresponding tag eg <HTML> and </HTML>. This would close HTML

<HTML>
This tells the web browser how to format the information given from <HTML> to </HTML>.

<HEAD>
This is used to create scripts etc. So this is used to input JavaScript into the code.

SOURCE:
http://www.w3schools.com/html/html_head.asp

<TITLE>
This tells the web page to put whatever is between opening and closing tag into the browser toolbar and shows the title for the page in search engine results and the title when added to favourites. So the title for this web page is: Exam entry.

SOURCE:
http://www.w3schools.com/tags/tag_title.asp

<SCRIPT>
This tag is used to implement JavaScript into the code this is used to change the colour of the text if you don't input a Subject, Name or both.

SOURCE:
http://www.w3schools.com/tags/tag_script.asp

<H1>
This is just the same as the text but the lower the number the bigger the text; this can be used to show how important something is. In the program this is used to make the text for the text "Exam Entry" bigger.

SOURCE:
http://www.w3schools.com/tags/tag_hn.asp

<FORM>
This makes an interactive box which the Form user can input information for: tallies or any other information that is requested, also using the tag: <FORM> tells the web browser to translate some tags that wouldn't be understood if outside the </FORM>

This is used to make a form that post information to be understood and to assign the variables.

SOURCE:
http://www.w3schools.com/tags/tag_form.asp

<TABLE>
This is used to make the table for information to be entered into.

<TD and TR>
TR is made to make a box to make a row in a table which information can be entered; TD is used to tell the web browser what has been entered is some form of information

2.

3. Describe how the JavaScript function performs the validation check.

The `function validateForm()` is used to validate data in html to make it more efficient by not having to send it to a server which would slow down the process (http://www.w3schools.com/js/js_form_validation.asp).

Then VAR used to set a variable in JavaScript. In the code this is used to set result = True meaning the code will be read by the browser.

The `if (document.ExamEntry.name.value=="")` if this puts a box that appears on the screen if you don't type anything into the box

The `document.getElementById("subject").style.color="red";` turns the text red if nothing is entered in the box.

The

```
if(msg == ""){
return result;
}
{
alert(msg)
```

Actually makes the box pop up.

4. Describe the HTML validation routine.
The <Input> tells the web browser that information is being added, this is used in the code to send information to the JavaScript to be checked.

The <TD> tells the browser than what is between <TD> and it's closing tag is information so when sent to be validated the web browser knows to translate it

The submit code tells the browser that when the button(onclick) is pressed to send the data to "validateForm()" and the resets the boxes to be reused also a pop up box will appear saying if you don't have anything in the box.

(The computer runs this and doesn't get sent to servers at all)

4.(i) add another text field to the form to take the user's examination number.
I copied:

```
<tr>
<td id="subject">Subject</td>
<td><input type="text" name="subject" /></td>
</tr>
```

and altered it to say:

```
<tr>
<td id="examinationnumber">Examination Number</td>
<td><input type="text" name="examinationnumber" /></td>
</tr>
```

I tested it by entering "s" into all but one of the boxes and it came up with an error then typed nothing in and then typed all the information in.

4(ii). Extended the JavaScript code to say if

```
(document.ExamEntry.examinationnumber.value=="") {
msg += "You must enter the examanition number \n";
document.ExamEntry.examinationnumber.focus();
document.getElementById("examinationnumber").style.color="red";
}
result = false;
```

But at first I accidently deleted a } so I had to run through my code to find it, once corrected it worked.

4(iii). Extend the JavaScript code to make sure that the user's examination number is exactly 4 digits.

I read this source and messed around with the code, I tested it by using multiple things such as: 0000(worked), 000 (didn't work) and 66666 (didn't work).

```
14  if (document.ExamEntry.examinationnumber.value.length!==4) {
15  msg += "You must enter the examanition number \n";
```

5) Add a set of radio buttons to the form to accept the level of entry such as GCSE, AS or A2. Write a function that displays the level of entry to the user in an alert box so that the level can be confirmed.
I did this with all the radio buttons working, I then changed a part of the code that stopped all the radio buttons working, to solve this next time I will make back up files so if I mess up I can go back to a previous save to which it works.

6)Produce an evaluation of your tasks.
Question One was pretty simple, as all you had to do was describe what each HTML did. Allthough it was very time consuming as I looked for the function of which HTML tag did, if I would change anything I would have spent less time on it.

Question Two I found pretty simple as I just had to look up what line of code did within the JavaScript so I researched what they did so it was simlpe to do,

Question Three was a bit harder to understand then put into the code's context.

Question Four I was simple as all you had to do was copy and paste a part of code and adjust what it said inside.

Question Four II was easy but I was missing a "}" and since I didn't save a back up so it took a while for me to fix that, If I could of changed one thing I would have had a back up.

Question Four III I had done but broke the code meaning it didn't work and since I didn't have a back up it meant that I couldn't retrieve it.

5) I have them done but they don't work and I can't find out what is wrong with the code.

7) Write a conlusion about the effectiveness of JavaScript validation routines to reduce the number of errors that are made in data input.
One of the reasons JavaScript is effective is because JavaScript can validate all user inputs before sending the user's inputs to the web server. It can also check the size of the file upload, java script can validate the content of the file upload before sending the file's content across network to the web server. The fact that HTML can validate is very efficient as it doesn't have to waste time sending information to servers meaning that the information doesn't take a long time time to be analysed.

One of the disadvantages of JavaScript is that some web browser block JavaScript as it can be used to code viruses etc meaning that javascript can't be vastly used. Another disadvantage is that you need to learn how to entwine scripting and javascript together which can make it less clear and harder to learn.

In conclusion I belive JavaScript works well with html and makes you able to make validation routines much easier by reducing the ammount of lines of code needed and due to having to type less you won't have as many errors.

The small print

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