

Chapter 19 : Excel

Function : It is a special type of formula with a pre-defined name, that is built into the software/ They are used to simplify complicated calculations.

Formula : A formula can be a simple calculation/mathematical operation and can be typed directly into the formula bar. A formula can contain a function.

Why is a named range used in a spread sheet ?

-You can easily refer to a group of adjoining cells, thus shortening the formulae since it enables you to refer to a group of cells without having to lookup cell references or re-set the absolute referencing manually.

After a website has been created it will be tested. Identify two factors that must be considered when designing an effective test plan.
2 from:

The purpose of the website

The target audience

Corporate house styles

Describe each item that needs to be tested

Identify inputs (data to be entered)

Identify expected outcomes

Use of hyperlinks :

To navigate from one place/page to another

When used with a website, absolute and relative file paths can be explained as:

Relative path points to current folder « so relative links uploaded to server will work

Absolute file path points to a location on a storage device «so links uploaded to server unlikely to work (unless same structure)

Brackets have highest priority so are calculated first

Exponents/indices have second priority (powers and roots)

Division and multiplication are next

Last are addition and subtraction

Evaluate in your own words other changes that you could make to this image to make it more suitable for use in the web page.

(4 from) –1 mark each

Colour depth can be changed...

From 16 bits/channel

To 8 bits per channel

Reduces storage space...

... and image transmission time...

...by saving in gif format

...by saving in jpg format

...save as jpeg with lower resolution

4 marks

Identify two methods of testing a web page:

Functional testing / alpha testing / in-house

A spreadsheet program is ELECTRONIC PAPER -- also called a **WORKSHEET**. With MS Excel, you can have multiple worksheets contained in a **WorkBook (a single Excel file)**.

The workplace is divided into **COLUMNS** and **ROWS**.

COLUMNS traditionally are designated by one or two letters (starting with **A**). Columns are vertical. (up and down).

ROWS are generally identified by numbers (starting with **1**). Rows go across.

The **INTERSECTION** of a row and column is called a **CELL**.

A **CELL** is typically referred to by its column and row designation (A1 or Z56 or AA345 or VK987) which is its unique **ADDRESS** within the total spreadsheet.

A cell may contain one of three types of entries:

1. Numbers or *values* (numeric data)
2. *Labels* (alphabetic or alphanumeric data)
3. *Formulas* (expressions of calculations or relationships among cells)

Why is it important to enter accurate data in spreadsheets ?

- To make sure data is identical to original document
- If one data is wrong, all data in the spreadsheet would be wrong
- one small error in the formula would likely stop the spreadsheet working as it is expected to.

The cascading stylesheets are part of the **Presentation** layer in website development.

Hyperlinks are an action in a web page and they are part of the **Content/Structure** layer.

The text and images of a web page are added to a web page in the **Content/Structure** layer.

An action like 'hover over' or 'on click' would be found in the **Behaviour/Scripting** layer.

Fonts match the style in company logo

Fonts may be part of corporate house style.

Font colour matches that in logo for style h1.

Fonts are script fonts so are more difficult to read.

Poor contrast between text & background

File has been changed from PNG file settings of 16 bits/channel to a JPG/GIF file of 8 bits per channel. This reduces storage space and image transmission time by about ½.

- Browser searches (through available fonts) for the font Times (and if found it is displayed).
- If the font Times is not available, browser searches for "Times New Roman"
- If neither is available, browser uses its pre-defined/default generic serif font.
- Speech marks are around "Times New Roman" to define it as a single string/so it does not search for Times

Evaluate:

- I have used data validation to restrict the data entry
- Data entry is restricted to only the items entered in source list/range of cells
- My validation rule only caters for lower case letters/should allow upper case letters
- My validation rule should not allow a blank cell in B4 as it could cause an error

Suggestion

- List source in validation rule should be extended to include D and W
- Remove tick box for 'ignore blank'/ prevent B4 containing no data

Improvement

- Improvement print screen, showing D and W added to accepted validation
- ignore blank tick removed if error mentioned above

style="margin-left:auto; margin-right:auto width:900px"

Replace the text <Evaluation here> with an evaluation of each of these methods for use in the development of the Goa Elephant Sanctuary's website. Include in your evaluation which is the most appropriate method.

3 from:

Resizing in web page takes longer to load as full image is downloaded.

This allows the same image to be used as a full image and a thumbnail.

If resized in a graphic package the file size is reduced.

Therefore faster to download the web page.

...which is essential given the information "Many of the people who will view the web page have very slow internet connection".

Resizing may change clarity of the image

Max 3 marks

Conclusion: the resizing in the graphics package is appropriate for this task.

1 mark

Examine the file 1632training.rtf and open it in an appropriate software package.

Make sure that your name, Centre number and candidate number are placed within these notes.

Replace the text <Answer 1 here> with suitable methods of reducing the dimensions of an image for use in a web page.

Width and height attributes can be set within the web page. 1 mark

The image can be resized within a graphics package. 1 mark

The layout of a web page is created in the **content** layer.
The **behaviour** layer contains coding.
Hyperlinks are placed in the **content** layer.
The **presentation** layer contains the colour definitions for a web page.

Examine the file *1631manta1.tif*. Explain in your Evidence Document why this image is unsuitable for inclusion on the Maldives web page and what you could do to enable it to be used.

4 from:

Image size is too large for efficient download	1 mark
TIFF format cannot be used in all browsers	1 mark
Image needs converting to Bitmap graphic	1 mark
Save with lower image resolution	1 mark
Image could be cropped	1 mark
Image could be reduced in size	1 mark

You need to test the website at this point.

Explain in your evidence document what you would test in this website before it is uploaded to the internet.

4 from:

Test internal links between pages
Test internal anchor/hyperlink works
Test mailto opens an email client
Test mailto has correct recipient (hothouse-design@cie.org.uk)
Test mailto has correct Subject line (Web design enquiry)
Test alt text works for each image
Test link to GES opens in a new window

The content layer is responsible for entering the content of a webpage structure

Presentation layer is used to format the whole page structure

Behavior layer is used for entering the scripting language to a web page or individual elements

Open and examine all the supplied web pages.

Evaluate the efficiency of the markup for these pages and explain how improvements could be made.

Valid positive or negative comment on efficiency	1 mark
... with a reason	1 mark
One method of improving the efficiency...	1 mark
... with an explanation	1 mark

Example answer:

Internal styles not efficient (for these pages)...
...duplication of effort to create and edit
Replace internal styles with an attached stylesheet...
...only have to edit the styles once

```
table,td      {border-style:solid;
               padding:10px;
               spacing:10px}

table         {border-color:#FFFF66;
               border-collapse:collapse;
               border-width:4px;}

td            {border-color:#FF66CC;
               border-width:2px;}

ul            {list-style-type:square;}
```

```
body         { background-color: #cfc5ab}
h1,h2,h3     { font-family: "Zapf Chancery","Blackadder ITC",serif;
               text-align: center;}
h1           { color: #ff0000;}
h2,h3       { color: #0000ff;}
```

h1	color:#ff0000	1
h2,h3	color:#0000ff	1

Table border 4px and cell border 2px	1
Table,td Border-color: #ff0000	1

```
table,td     { border-color: #ff0000; border-collapse: collapse; border-style:solid;}
table        {border-width: 4px; }
td           {border-width: 2px;}
```

```
table,td     { background-color: #000000;
               border-width: 4px;
               border-style: solid;
               border-collapse: collapse;
               text-align: center;
               vertical-align: middle }

table        { border-color: #ff0000;
               margin-left: auto;
               margin-right: auto }

td           { border-color: #ff5733 }

h1           { color: #ffffff }

/* A Candidate ZZ999 9999 */
```

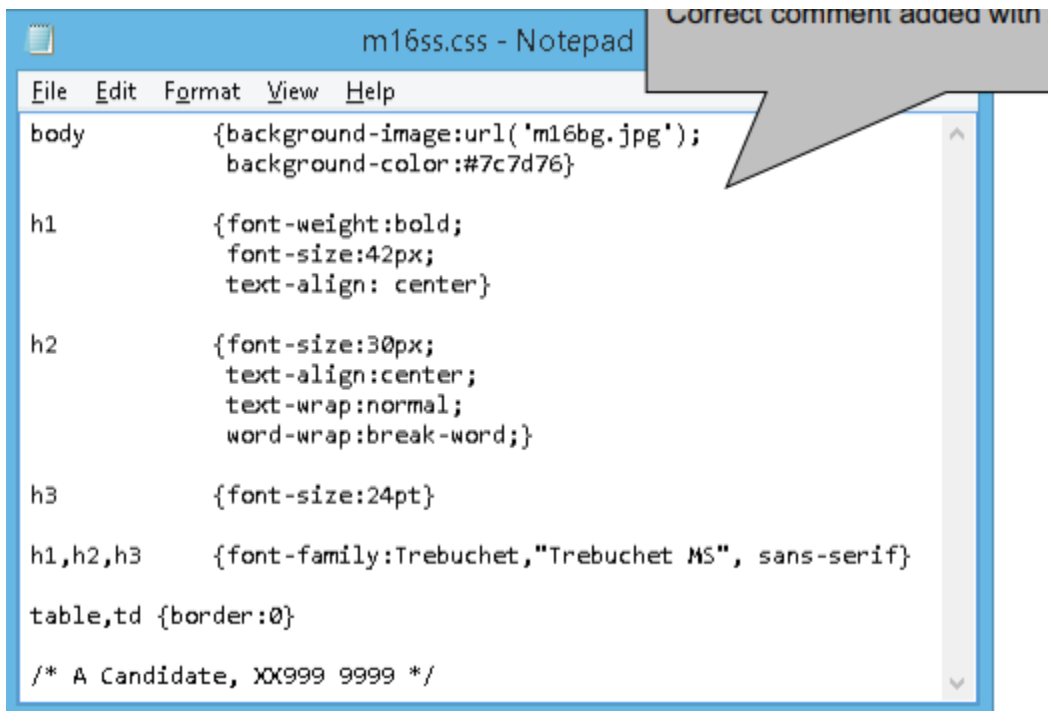
Stylesheet
table border-color: #ff00

Evaluate the webpage you have just created.

Bright colours within the page attract attention
Magenta mask on background image makes reading text difficult
Text under image/Alt text identifies the image
Colour schemes do not look like professional company site
Logo does not blend with background/has poor contrast between background and text
Image of beach front café is taken from too far away

A website is tested before it is uploaded to the Internet. Describe how you would develop a test plan to test the hyperlinks, as part of a test strategy.

Identify each element to be tested	1 mark
For each test identify Expected output	1 mark
Test plan contains Actual output	1 mark
Test plan contains remedial action	1 mark



```
m16ss.css - Notepad
File Edit Format View Help
body {background-image:url('m16bg.jpg');
      background-color:#7c7d76}

h1 {font-weight:bold;
    font-size:42px;
    text-align:center}

h2 {font-size:30px;
    text-align:center;
    text-wrap:normal;
    word-wrap:break-word;}

h3 {font-size:24pt}

h1,h2,h3 {font-family:Trebuchet,"Trebuchet MS", sans-serif}

table,td {border:0}

/* A Candidate, XX999 9999 */
```


table	
border-style:	solid
border-width:	2px
border-collapse:	collapse
td	
border-style:	solid
border-width:	1px
h1	
color:	#330066
font-family:	"Helvetica Neue" , Calibri , sans-serif;
font-size:	36pt
text-align:	center
h2	
color:	#330099
font-family:	Arial
font-size:	18pt
text-align:	right
p	
color:	#000008
font-family:	sans-serif
font-size:	14pt
text-align:	left
body	
background-color:	#99CCFF

Analyse the stylesheet started by the trainee and evaluate its contents.

Syntax of style name and { } correct	1 mark
3 from:	1 mark each point, max 3 marks
Number of styles missing from the stylesheet	
Style TH created but not required	
Syntax incorrect = should be a colon	
4px not 4pixels	
	max 4 marks total

Edit the file 1631manta1.tif to make it suitable for a web page.

Place this image in the web page 1631maldives.htm so that it replaces the text Place image 1631maldives here

File saved in .jpg, .jpeg or .png format	1 mark
Image resolution reduced during saving	1 mark
Image resized or cropped	1 mark
Image placed in web page	1 mark

body

background-color: #000000

h1, h2

font-family: Helvetica
, Arial, sans-serif;

h1

color: #FFFFFF
font-size: 30px
text-align: center
font-style: italic

h2

color: #FFFF00
font-size: 20px
text-align: right

table and td

table,td {border:0}

table and td

border-style:solid;
padding:10px;
spacing:10px

table

border-color:#FFFF66;
border-collapse:collapse;
border-width:4px

td

border-color:#FF66CC;
border-width:2px;

ul

list-style-type:square

Candidate details as a comment

Use of table, td for efficient syntax for border-style

A website is tested before it is uploaded to the internet. Hyperlinks will be tested as part of the test strategy.

List 4 questions in your own words that could be used within the test plan to test these hyperlinks.

- 4 from:
 - Is hyperlink from correct text/image?
 - Do hyperlinks to anchors within the page work?
 - Do hyperlinks to other pages in this site work?
 - Do hyperlinks to email open the editor/software?
 - Do hyperlinks to email have the correct address/subject line?
 - Do all external hyperlinks to existing URLs work?
 - Are planned URL's owned/available for purchase?

(1 mark for each, max 4 marks)

Evaluate in your own words the change of background image.

4 from:

First background gives clear contrast to text/second does not have clear contrast

Structure of webpage is clear with first background

Second background image is unsuitable as it shifts from light to dark and is tiled

Second background image relates to the context of the business as it includes an image of an elephant

In second background it does not look like a professional company site

Logo has poor contrast between background and colours of the logo

```
h1      {font-weight:bold;
        font-size:42px;
        text-align:center}

h2      {font-size:30px;
        text-align:center;
        text-wrap:normal;
        word-wrap:break-word}

h3      {font-size:24px}

body    {background-image:url('m17bg1.jpg');
        background-repeat:repeat;
        color:#500000;}

h1,h2,h3 {font-family:"Corsiva Hebrew",Candara,sans-serif;}

table,td {border:0}

/* A candidate, 77999, 9999 */
```

h1,h2,h3 {font-family:"Corsiva Hebrew",Candara,sans-serif;}
table,td {border: 0}
Use h1,h2,h3 for efficient syntax for h
Correct comment added with /* forma

Comments	/* Candidate details */
table { }	width:650px border:5px border-collapse:collapse padding-top:6px; padding-bottom:6px padding-left:4px; padding right:4px
td{ }	border:2px
table,td { }	border:solid dark green (#005000) These 2 elements in joint section
h1 { }	color: #005000 font-family: Palatino, ,Times New Roman In speech marks ,Times ,serif
h2,h3,li { }	font-size:36px
font-size	font-size:16px
h2 { }	one style line used for these 3 styles
h3 { }	text-align:left
CSS syntax	text-align:center
st1731?????.css	Must have ; between properties attached below tab173.css

```
/*A Candidate,ZZ999,9999*/
```

```
table      {width:600px;
            margin-left:auto;
            margin-right:auto}
h1         {color:#000080;
            font-family:Chalkduster,Verdana,sans-serif;
            font-size:30pt;
            text-align:center}
h2,h3,li   {font-family:Arial,sans-serif}
h2,li      {font-size:16pt}
h3         {font-size:14pt;
            font-style:italic}
```