AS GCE INFORMATION AND COMMUNICATION TECHNOLOGY

G062/01   Structured ICT Tasks

INSTRUCTIONS TO CANDIDATES

- You should attempt all tasks, working independently from other candidates.
- There are no time limitations on the tasks other than that they must be submitted by the appropriate internal deadline set by the Candidate's Centre. This deadline will reflect the need for the Centre to complete marking of the tasks and submission of marks to OCR by 15th May 2012.
- There are no restrictions on computing facilities, hardware or software that may be used.
- All data files required for these tasks can be downloaded from www.ocr.org.uk/ qualifications/asa_levelgceforfirstteachingin2012/ict/documents.html#Pre-release_ materials
- All work produced for the tasks must be kept secure within Centres and not published or distributed externally in any form.
- You **must not** be given, either individually or as a group, any assistance, verbal or written, in the carrying out of the tasks or evidence to produce.
- **Once your tasks have been marked by the Centre, they cannot be re-submitted for improvements.**

INFORMATION FOR CANDIDATES

- **Candidates are reminded of the need for good English and clear presentation in their answers. They will be expected to have used software tools, such as spellcheckers, to help achieve this.**

Notice to candidates

1 The work which you submit for assessment must be your own.
   However, you may:

   (a) quote from books or any other sources: if you do, you must state which ones you have used;

   (b) receive any guidance from someone other than your teacher: if so you must tell your teacher, who will record the nature of the assistance given to you.

2 If you copy from someone else or allow another candidate to copy from you, or if you cheat in any other way, **you may be disqualified from at least the subject concerned.**

3 When you hand in your coursework for assessment, you will be required to sign that you have understood and followed the coursework and portfolio requirements for the subject.

- This document consists of **20** pages. Any blank pages are indicated.

OCR is an exempt Charity

Turn over

Futuretastic Theme Park

Futuretastic is a new theme park that is about to open situated between Birmingham and Coventry. Its theme will be 'Future Technology' and will be a mix of science fiction and real world developments in ICT and other technologies. Alison Smith, the Park Manager, has approached you to develop a range of products for the theme park.

Alison has supplied you with the following house style sheet for the theme park.
This must be applied to all documents.

	Word Processed Document	Web Page	Spreadsheet	Database
Title				
Font	Century Gothic	Century Gothic	Century Gothic	Century Gothic
Font Size	18	32	24	24
Font Colour	Black	Black	Black	Black
Font Style	Underline	Underline	Underline	Underline
Alignment	Centre	Centre	Centre	Centre
Sub-title				
Font	Century Gothic	Century Gothic	Century Gothic	Century Gothic
Font Size	14	16	14	14
Font Colour	Black	Black	Black	Black
Font Style	Bold	Bold	Bold	Bold
Emphasis				
Font	Arial	Arial	Arial	Arial
Font Size	12	12	12	12
Font Colour	Black	Black	Black	Black
Font Style	Italic	Italic	Italic	Italic
Normal				
Font	Arial	Arial	Arial	Arial
Font Size	12	12	12	12
Font Colour	Black	Black	Black	Black
Font Style	N/A	N/A	N/A	N/A
Hyperlink				
Font	N/A	Arial	N/A	N/A
Font Size	N/A	12	N/A	N/A
Font Colour	N/A	White	N/A	N/A
Font Style	N/A	N/A	N/A	N/A

Task 1 – [Total 11 marks] Graphics

Futuretastic requires a corporate identity character, which will be called 'F-Bot'. This character will be used in a variety of situations. Alison Smith has provided the following requirements:

- the character will be created from scratch
- the character will look like a robot
- the character will be produced as a vector image
- the letter 'F' should be included somewhere on the character
- the F-Bot character will be scalable while maintaining detail and definition
- the completed character will only contain the following colours, white, blue and red.

(a) Using a computer and suitable vector graphics software create F-Bot. Use annotated screen shots to show how the image meets the client's requirements. **[3]**

(b) The F-Bot character will often be placed over other images, coloured backgrounds and even movies. There is a requirement that the image has a transparent background.
Produce a help sheet in the house style to show how to:

- scale the character to an appropriate size, while maintaining its proportions
- apply a transparent background
- export the image in a format that supports transparent backgrounds.

[3]

The character needs to be animated to appear in a multimedia product you have yet to create. Alison has given you the following requirements to work from:

- the animation should be at least five seconds long
- the animation should run at 10 frames per second
- the animation should loop effectively
- the animation should be 200 pixels wide and 250 pixels high
- other images or backgrounds used in the animation can be white, black or yellow
- the animation should have the following stages
  - the animation begins showing the standard F-bot graphic
  - looking left then right
  - having 'a bright idea'
  - then looking excited or happy
  - before returning to standard F-Bot graphic.

(c) Design the animation using a storyboard. The storyboard should show:

- hand-drawn images
- a minimum of 5 storyboard panels depicting major events on the timeline of the animation
- clear annotation of what occurs at each stage in the animation
- an indication of the amount of frames used in each step of the animation.

[2]

(d) Using a computer and suitable animation graphics software create the F-Bot animation. Use annotated screen shots to show how the animation meets the client's requirements. **[3]**

Task 2 – [Total 9 marks] Targeted Mailshot

Futuretastic has a contract with the neighbouring Winchester Hotel to offer weekend breaks. The offer includes bed and breakfast on the Friday and Saturday nights and a two-day pass to the theme park with fast track queuing. The offer costs £95 per person or £250 for two adults and two children.

The theme park has the results from a large scale marketing survey on consumer behaviour. These results can be found in the file *Marketing.txt*. Futuretastic would like to distribute a marketing letter to households who have expressed an interest in visiting the Futuretastic theme park **and** are planning a weekend break in the near future. The main body of the letter can be found in the file *body.txt*

The letter should be personalised.

If the letter is addressed to a family with children, it should contain the following text:

We believe you have a child in your family! They will love the newly built Space House and all it has to offer! Contact us for even more generous childrens' rates.

If there are no children, the letter should contain the following alternative text:

The luxurious Winchester Hotel has extensive spa facilities so after the excitement of your day you can relax and unwind with a sauna or by booking one of the extensive range of treatments available.

This will be the first communication with the general public using the new F-Bot character and this should be used on the mailshot as background to the text.

The address of Futuretastic is:

Futuretastic
Astley Lane
Astley
Nr Nuneaton
CV10 7XX

The letter should fit on one side of A4 paper.

(a) Produce the letter in appropriate software.

   (i) Give annotated screenshot evidence of how you embedded the names and addresses of the intended recipients from *Marketing.txt* to allow automated production of personalised letters. **[1]**

   (ii) Give annotated screenshot evidence showing how you restricted the letters being printed to only those asked for in the requirements. **[1]**

   (iii) Give annotated screenshot evidence showing how the contents of the letters were automatically altered dependent on whether there are children in the family. **[1]**

   (iv) Print all the letters. **[1]**

(b) Provide annotated evidence of how 'F-Bot' was embedded in the background of the letter. **[1]**

Several months pass and the offer has been a great success among couples with no children. Very few families with children have taken the offer up however.

It has been decided that an 'incentive' may encourage people with children to visit the theme park. Futuretastic have suggested a "percentage off" voucher at the bottom of the letter with a customised level of discount dependent on the number of children in the family. The levels of discount are:

   • 1 child – 5% off
   • 2 children – 10% off
   • 3 children – 15% off
   • 4 or more children – 20% off

The voucher which must be at the bottom of your letter should include the text:

FAMILY DISCOUNT
We at Futuretastic understand that for families a visit to us can soon get expensive. As you have (insert the field «Child_Number» here) (insert a field that chooses either child or children here dependent on the «Child_Number» field) *this qualifies you for a* (insert a field that calculates the correct level of % off dependent on the contents of the «Child_Number» field here)% *discount on your next visit*.

To make sure prospective customers immediately see the special offer, also show the % discount amount in a size of 72pt at the side of the main Family Discount text.

The letter will be sent to all customers in the *Marketing.txt* file who have children.

(c) Complete the FAMILY DISCOUNT task fulfilling all the criteria.

   (i) Give annotated screenshot evidence showing how the % discount was calculated for each letter. **[1]**

   (ii) Give annotated screenshot evidence showing how the word child or children was inserted into the letter dependent on the amount of children in the family. **[1]**

   (iii) Print all letters that will be sent to customers with children ensuring that the house style has been applied. **[2]**

Task 3 – [Total 23 marks] Spreadsheet

Futuretastic has collected extensive data from prospective customers about their intentions when visiting the theme park. These include:

- expected arrival and exit times
- when they prefer to eat
- when in the day they anticipate they will be most likely to visit the different attractions in the park.

Table 3.1 shows a breakdown of the expected customer use of the theme park, per hour.

Attractions	Cycles per hour	Max Visitors per cycle	Percentage of use 9am–10am	Percentage of use 10am–11am	Percentage of use 11am–12pm	Percentage of use 12pm–1pm	Percentage of use 1pm–2pm	Percentage of use 2pm–3pm	Percentage of use 3pm–4pm	Percentage of use 4pm–5pm	Percentage of use 5pm–6pm
Zappo the Wonder Phone Rollercoaster	7	65	20%	18%	16%	8%	10%	12%	28%	23%	20%
Over the Horizon Ride	6	28	9%	6%	3%	4%	5%	6%	11%	10%	9%
Speed to the Skies Launch Ride	13	25	5%	8%	10%	6%	5%	8%	5%	10%	9%
Undersea Adventure Aquarium	1	300	15%	10%	10%	4%	6%	10%	6%	10%	9%
Zchool is Kool Experience	4	80	10%	4%	6%	8%	10%	10%	10%	10%	9%
Headspace 3D Spectacular	2	200	25%	17%	5%	4%	7%	20%	15%	20%	18%
Space House Dis-orientation	12	25	5%	13%	5%	4%	5%	10%	10%	6%	5%
Nanocreche Slides and Rides	1	290	2%	5%	6%	8%	6%	10%	6%	4%	2%
Future Food Zone	1	1000	5%	6%	17%	27%	23%	6%	5%	3%	8%
Food Kiosk 1	110	2	1%	3%	7%	9%	6%	2%	1%	1%	3%
Food Kiosk 2	120	2	1%	3%	5%	7%	6%	2%	1%	1%	2%
Food Kiosk 3	90	2	1%	3%	5%	5%	6%	2%	1%	1%	2%
Food Kiosk 4	90	2	1%	4%	5%	6%	5%	2%	1%	1%	4%

Table 3.1

By combining this information with predicted information on the various attractions' ability to process customers, John Jones, Operations Manager, is hoping to model park usage over the course of the first day of the theme park's use. He will then be able to despatch clowns and mobile food stalls to the busiest areas of the theme park.

Table 3.2 shows anticipated visitor entries and exits.

Time	9am–10am	10am–11am	11am–12pm	12pm–1pm	1pm–2pm	2pm–3pm	3pm–4pm	4pm–5pm	5pm–6pm
Estimated Park Entries	1050	1700	900	650	200	150	100	0	0
Estimated Park Exits	0	0	10	100	600	600	1800	790	850
Net Visitor Flow									
Total Visitors in Park									

Table 3.2

(a) (i) Use a computer and suitable software to enter the data from Table 3.1 and Table 3.2. Complete the Net Visitor Flow and Total Visitors in Park rows in Table 3.2 using formulae. Call the worksheet '**Data**'. Print the completed worksheet on a single side of A4 while remaining readable. Include row and column headings. **[1]**

(ii) All calculations in the 'Net Visitor Flow' and 'Total Visitors in Park' rows must be 100% accurate and automatic. Print annotated evidence of the formulae or functions you have used in these areas of the spreadsheet (including column and row headings e.g. A, B, C, 1, 2, 3 – if named cell ranges have been used they need to be clearly identified). **[1]**

Futuretastic requires a visitor queue model showing the times of the day when the park attractions will experience excess demand across a one hour period.

- As the information produced will represent visitors, **all** calculations involving visitors should be rounded up.
- There is an assumption that visitors queuing will wait as long as necessary to access an attraction.
- The visitor queue model will be on a separate worksheet to the data from Table 3.1 and Table 3.2.

Table 3.3 – The operations manager has already sketched out an outline of how the 'Futuretastic Visitor Queue Model' will look:

	Times in columns along here 9–10, 10–11 etc
Attractions here	Results here (Will show a value for excess capacity or queue. No other data should be visible here except excess capacity or queue.)

Table 3.3

(b) (i) Create a new worksheet called **Model**. Use a computer and suitable software to complete the Futuretastic Visitor Queue Model. Use the data from the Data worksheet to do this. Print the completed worksheet on a single side of A4 while remaining readable. Include row and column headings. **[2]**

(ii) The Operations Manager has asked where the two largest queues will be from 3pm to 4pm so clowns can be despatched to provide entertainment. Using annotated screen shot evidence, identify the two largest queues between 3pm to 4pm. **[1]**

(iii) The Operations Manager has asked which attraction has the longest queue for the day and at what time. Using annotated screen shot evidence, identify the attraction, with the time, which has the longest queue during the day. **[1]**

(iv) All calculation(s) used to model the number of visitors intending to use an attraction in any hour period must be 100% accurate and automatic. Print annotated evidence of the formulae or functions you have used in these areas of the spreadsheet (including column and row headings e.g. A, B, C, 1, 2, 3 – if named cell ranges have been used they need to be clearly identified). **[2]**

The array of figures on the Futuretastic Visitor Queue Model can be a little confusing at first glance. The Operations Manager has asked for help in quickly identifying problem areas around the Theme Park. He would like the Futuretastic Visitor Queue Model to automatically show the following formatting:

- Areas with excess capacity should have a green background. The values in these cells should not be visible.
- Areas with 1-49 visitors waiting in a queue should have an orange background. Numeric values should be visible in these cells.
- Areas with 50 or more visitors waiting in a queue should have a red background. Numeric values should be visible in these cells in bold.
- A key should be provided to explain the significance of the 3 colours.

(c) (i) Use automated procedures to implement the Operations Manager's request.

Print the completed worksheet on a single side of A4, while remaining readable, after the procedures have been implemented. **[1]**

(ii) Print annotated screenshot evidence of how automated formatting procedures were used to achieve the required results. **[1]**

To enable an audit of the amount of time visitors waste around the park queuing, a new column and row needs to be added to your model.

	Times in columns along here 9-10, 10-11 etc	Queued Visitors per attraction
Attractions here	Results here (Will show a value for excess capacity or queue. No other data should be visible here except excess capacity or queue.)	
Queued Visitors per hour		

Table 3.4

(d) The new column will show the total amount of queued visitors for each attraction. The new row will show the total amount of queued visitors for each hour.

Add the new column and row headings. Add formulae to automatically add the 'Queued Visitors' in each row and column of the model.

(i) Print the completed worksheet on a single side of A4. **[1]**

(ii) All calculations used to work out the numbers of 'Queued Visitors' must be 100% accurate and automatic. Print annotated evidence of the formulae or functions you have used in these areas of the spreadsheet (including column and row headings e.g. A, B, C, 1, 2, 3 – if named cell ranges have been used they need to be clearly identified). **[1]**

(e) John Jones, the Operations Manager, would like a new worksheet in your workbook where he can choose an attraction from a multiple choice list and view, for each hour, the queue size in a graphical format. Once he has chosen the attraction, a graph should be drawn below the multiple-choice list. The X-axis should be labelled 'Time' and the Y-axis 'Queue'. A clear title showing which attraction the graph shows should also be included.

A button should be embedded on the graph worksheet that will allow the graph to be printed in a single click. The printed graph should fill one side of A4 on Landscape orientation.

(i) Print annotated evidence that explains how the control on the graph worksheet you have created automatically generates a graph when an attraction is selected. All formulae or routines used must be clearly identified. **[2]**

(ii) Use the button you have created to produce a printout for Zappo the Wonder Phone Rollercoaster. The printout should adhere to the house style. **[2]**

(iii) Print annotated evidence to show how the print button automatically prints the graph. **[1]**

(f) The initial 'Futuretastic Visitor Queue Model' has now grown to use several worksheets. The Operations Manager would like you to add a User Interface to your completed system and protect some parts of the data.

- On opening the spreadsheet, the user should see a Welcome Page that will allow them to use buttons to access the:
  - Data worksheet
  - Model worksheet
  - Graph worksheet.
- Include a short section of explanatory text next to each button explaining the function of the worksheet the button will take the user to.
- The Welcome Page will have F-Bot in the top left corner and a title of 'Futuretastic Visitor Queue Model'. The Welcome Page should not show gridlines.
- The user should be able to navigate back to the Welcome Page from the three worksheets.
- The contents of the Data worksheet needs to be protected from unauthorised editing though it can be viewed by anybody using the system.

(i) Implement a method of navigating between worksheets that meets the requirements. Print the Welcome Page that you have created and provide annotated evidence to explain how you implemented your navigation system. **[2]**

(ii) Protect the information on the Data worksheet. Provide annotated screenshot evidence of the protection implemented for all data cells and how the system reacts when a user attempts to change a cell. **[1]**

(g) Plan **three** different tests for Futuretastic on different formulae/functions within the worksheets. Produce a table of valid test data using Table 3.5 below. Clearly identify the input values to be used and the expected output values (only the first **three** tests will be assessed).

Test Number	Description of Test	Type of Test	Input data value(s)	Expected Output Value
1				
2				
3				

Table 3.5

[3]

Task 4 – [Total 28 marks] Database

Health and Safety is of paramount importance when running a theme park and operating large rides and attractions. Each ride requires a set number of staff, each with a range of qualifications that have been agreed with the Health and Safety Executive. Currently all records concerning employee training are stored in the 'HR Card File Index System'. Simon Jones is the Human Resource Manager for Futuretastic and has attended all the courses available. His Employee Record card can be seen below.

Employee Details		Qualifications				*(Space for F-Bot character when created)*
Employee Number	006	**Course Title**	**Duration (Hrs)**	**Date Attended**	**Pass**	**Bonus Points**
Name	Simon Jones	Queue Management	8	17/7/2010	Y	2
Address	66 Longest Ave	Basic 1st Aid	4	16/8/2010	Y	1
	Coventry	1st Aid +	8	23/8/2010	Y	2
	CV89 6GB	Emergency Evacuation	6	21/9/2010	Y	1
Phone Number	0234 567 8912	Conflict Resolution	8	03/10/2010	N	0
DOB	25/12/1969	Park Layout	8	12/10/2011	Y	1
Employment Date	16/12/2009	Ride Specific Procedures	8	14/10/2011	Y	3
Basic Salary	£38000					
					Bonus Points	10

Table 4.1 – Simon Jones Employee Card

Simon has given you his card as an example of the data. He has also given you several current data files *Employee.txt*, *Course.txt* and *Course_attendance.txt*. He would like you to design and create a database system that will allow him to transfer all data from the current 'HR Card File Index System' to a computerised one.

(a) Develop an appropriate database structure to meet the requirements above.

   (i) Show printed evidence of the implemented relationships in the new database system.

         [1]

   (ii) Show evidence of the field names, data types and primary keys used for each table.

         [2]

   (iii) Provide annotated evidence of how the 'Employee.txt' data file was successfully imported into the database system. **[1]**

Simon needs a single data entry screen that can be used for inputting new employee details and updating the qualifications they have attained. Assume labels are normal style text and the two section headings, Employee Details and Qualifications are sub-heading style text. A space had always been saved for a logo on the old form so F-Bot can now go in this space.

Simon would like the input for Course Title to be a drop down list of courses available in alphabetical order. All available courses should be fully displayed.

Employees earn 'bonus points' for successfully completing a course. Each bonus point is equivalent to a 0.5% bonus per point on Basic Salary (2 points = 1% bonus etc). No additional bonus is paid in the event of an employee failing a course. The new form will need the following information:

- the bonus points in the Qualification area should show either the points awarded OR zero points if the course was failed
- total bonus points (the amount of bonus points an employee has earned from passing courses)
- bonus % (0.5% bonus per bonus point)
- bonus amount (basic salary x the bonus %)
- salary + bonus (basic salary + bonus amount)

He would like to be able to print an employee record card using a button on the form. The print-out should fit on a single side of A4.

(b) (i) Show evidence of the data entry screen you have created with the data entered from Table 4.1. **[1]**

(ii) Show evidence of what happens when you click on the drop down list for 'Course Title' on the data entry form. **[1]**

(iii) Show annotated evidence of any calculations you used to display the required data. This may include calculated fields on the form as well as other calculations in the data underlying the form. **[4]**

(iv) Using annotated evidence show how the 'Print' button has been embedded on the form. **[1]**

The following rules need to be applied to employee records:

- Futuretastic began employing people on the 1st of June 2009.
- Futuretastic does not employ anybody below the age of 17 or above 65.
- the Date Attended (for a course) must always be equal to or later than the Employment Date (of the employee).

(c) Use these three rules to implement validation in your database system. Provide annotated evidence of the methods used in the validation and evidence of the rules being tested with erroneous data. **[3]**

A one off loyalty bonus payment of £500 is paid out after 500 days in employment by the firm. Previously, the date this was meant to be paid was written on the reverse of the card and a post-it stuck on the front as a reminder as the payment date drew near! After the employee had been paid the bonus a large tick was written over the date on the back of the card and the post-it disposed of.

Modify the database so that the Employee Record Card form will now show:

- The date the Loyalty Bonus is due
- A box that acts as a Loyalty Bonus reminder
  - Before the due date it should state "The Bonus is not due to be paid"
  - On and after the due date it should state "The Bonus is now due to be paid"
  - Once the Bonus has been paid all evidence of a reminder message should disappear.
- A method of recording that the Loyalty Bonus has now been paid to replace the old 'tick' on the paper card system.

(d) Print the Employee Record Card form for Simon Jones before and after he has been paid his £500 bonus.

Show annotated evidence of any calculations you used to display the three different messages. This may include calculated fields on the form as well as other calculations in the data underlying the form. **[2]**

Simon has to present a document to the Senior Management Team showing his department's achievements. A graph is required to show the number of courses passed between 01/01/2010 and 30/12/2010. The total number of passes for each type of course should be summarised. The X-axis should contain the course names and the Y-axis should contain the Number of Passes. The graph should have a title and a clearly labelled set of axes.

(e) **(i)** Print annotated evidence of the queries or calculations that you have used to generate the relevant information for the graph. **[1]**

(ii) Print the graph produced to meet the requirements on one side of A4 ensuring that the house style has been maintained. **[1]**

Simon also requires a report showing employees who have failed 3 or more courses. It should show the employee name with a list beneath each employee of the courses they have failed and the dates they failed the courses. The course dates should be shown in descending order for each employee. There should be a title at the top of the page of 'Employees who have failed 3 or more courses'.

(f) **(i)** Print annotated evidence of the queries or calculations that you have used to generate the relevant information for the report. **[1]**

(ii) Print the report produced to meet the requirements on one side of A4 ensuring that the house style has been maintained. **[1]**

The database now has three major components:

- the Employee Record Card form
- the Pass Graph
- the 3 or More Fails Report.

Simon would like a user interface to be built for the system you have designed. He has heard about the interface you used in creating the 'Visitor Queue Model' and would like you to adopt this as the style to be used for the database.

Requirements:

- Navigate to all 3 components from a main menu.
- Include a title and F-Bot on the main menu.
- Add previous, next, last, first and new record buttons to the Employee section of the Employee Record Card form. Also add a return to main menu button. (when evidencing only show how one button was created)
- Switch off the system scroll bars and record selectors for the Employee Record Card form.
- On opening the database the menu should open and be maximised automatically.

(g) Implement the requirements shown above. Show annotated evidence of how the requirements were met. Where macros, functions or settings have been used, provide evidence of their use. **[3]**

(h) Produce a printed user guide demonstrating how to use the full functionality of the new database system. The user guide should conform to the house style. Print a copy. **[5]**

Task 5 – [Total 9 marks] Web

Futuretastic requires a website that will be used to promote the Park. Soschia Kuczynski, Public Relations Manager, has supplied the following layout for each page. This should be put into place using an external CSS file.

CSS Requirements

- A maximum width of 1000 pixels
- A column on the left side of the page 200 pixels wide (reserved for a vertically orientated text-based navigation bar). The background colour of this area should be black.
- An area to enter content that is 800 pixels wide with a white background.
- Title, Sub-title, Emphasis, Normal text and hyperlinks should be defined using the appropriate house style.

Content Requirements

There should also be some standard content on each page.
- F-Bot at the top left of the page
- A text-based navigation bar allowing navigation between all 5 pages in the left hand column reserved for it.

The following pages are to be included:

- Welcome to the Future Zone. (Used as the Homepage)
  - Some text welcoming visitors.
  - A web feed to an external source should be embedded on the Welcome Page showing the weather in the Birmingham area. This will allow visitors to better plan their visit.
  - Mention that the Gift shop and First Aid offices can be found in this zone.
  - Mention the Future Food Zone.
  - A 'Future Food' themed image.
  - Park opening and closing times.
  - Adult tickets – £14.50; Child tickets – £8.50; Concessions – £11.50
  - Park location shown via an embedded interactive mapping service. Visitors should be able to click and interact with the map and it should initially be centred on the area with postcode CV10 7XX.
  - Directions – 'You will find us just off Junction 3 of the M6. Follow the 'Futuretastic' Road signs. The Park is just south of Astley'.

- Future Fun Zone.
  - Zappo the Wonder Phone Rollercoaster
    - 'A Roller-coaster that gives you amazing insight into the world of cellular mobile communications!'
    - A suitable image.
  - Over the Horizon
    - 'Get shot over the event horizon into an alternate reality with this great tower gravity ride!'
    - A suitable image.

- Future Transport Zone
  - Speed to the Skies
    - 'Experience the thrills of this Flying Saucer ride!'
    - A suitable image
  - Undersea Adventure
    - 'Who would have thought YOU could be travelling in a mini-sub … TODAY!'
    - A suitable image

- Future Education Zone
  - Zchool is Kool
    - 'We hope ALL zchools will be this kool! Experience the classroom of the future in the interactive learning space'
    - A suitable image
  - Headspace
    - 'Climb aboard one of our floating neuron-pods and take a journey into the technology enhanced brain of the future!'
    - A suitable image

- Future Kids Zone
  - Space House
    - 'A whole area dedicated to our visitors who are seven and below. A huge soft play area designed to emulate a space station'.
    - A suitable image
  - NanoCreche
    - 'We know that in a full day at Futuretastic, adults may need a break as well. Leave your toddler (6 months to 2 years) with our fully trained creche staff for up to two hours.'
    - A suitable image

(a) Using a hand drawn diagram, design the structure of the website. **[1]**

(b) Provide annotated evidence of how the external CSS file meets all the requirements. **[2]**

(c) Produce the website showing evidence of the web pages you created. **[3]**

(d) (i) Provide annotated evidence of how your weather web feed is linked to an external source. Show evidence of both the source of the weather information and how you embedded the live information on your site. **[1]**

(ii) Provide annotated evidenced to show how your map is linked to an external source. Show both the source and how the map was embedded on the welcome page showing the correct area. **[1]**

After looking at the site you have produced, Soschia would like to view the site with a slightly different design. She would like to experiment with inverting the text and background of the website. She would like to give the left hand column a white background with black hyperlink text. The larger right hand column should now have a black background and a new text colour of white.

(e) Using the CSS file implement the changes suggested by Soschia. Print out the homepage again showing the impact of the changes and provide annotated evidence of the changes you had to make in the external CSS file to meet her new requirements. **[1]**

END OF TASKS

18

BLANK PAGE

BLANK PAGE