

NCC EDUCATION

**INTERNATIONAL DIPLOMA
IN
COMPUTER STUDIES**

WEB DESIGN

SEPTEMBER 2008 – Local Exam

SECTION A

Answer all questions from this section.

SECTION B

Answer any 2 questions from this section.

Time: 2 hours

Clearly cross out surplus answers.

Failure to do this in Section B will result in only the first two answers being marked.

**Any reference material brought into the examination room must be handed
to the invigilator before the start of the examination.**

SECTION A

ANSWER ALL QUESTIONS IN THIS SECTION

	Marks
QUESTION 1 Describe the major features of the Internet and the World Wide Web.	4
QUESTION 2 Define a <i>server</i> and explain the role of <i>server software</i> . Name TWO (2) of the most popular server software packages.	4
QUESTION 3 Explain the difference between frontend and backend web development. Name TWO (2) common tasks of each design.	4
QUESTION 4 What is a browser? Briefly explain the protocol used when a browser interacts with a server.	4
QUESTION 5 List FOUR (4) guidelines to be considered when designing a web page to cope with different browser versions.	4
QUESTION 6 Explain the purpose of the TWO (2) main sections of a CSS rule.	4
QUESTION 7 Briefly describe TWO (2) advantages that CSS has over HTML.	4
QUESTION 8 Describe the html code for creating TWO (2) different types of list.	4
QUESTION 9 Briefly describe the TWO (2) properties for setting the appearance of the background of an html element and give example code for each type.	4
QUESTION 10 Write html code to create a checkbox and explain each part of the code.	4

Total 40 Marks

QUESTIONS CONTINUE ON NEXT PAGE

SECTION B

ANSWER ANY TWO QUESTIONS

QUESTION 1**Marks**

- A)** The most cost-effective way to provide images for a website is to make your own from scratch. Scanning is a great way to collect source images. Suggest **THREE (3)** scanning tips to ensure the images created are high quality. **9**
- B)** Give **THREE (3)** image formats used on the web and explain when it is most appropriate to use each format. **6**
- C)** Explain *interlacing* as applied to a GIF. Describe how the GIF is affected by the internet connection speed and suggest when it is worthwhile to use interlacing. **7**
- D) i)** Explain why JPEG compression is described as “lossy” and explain how it affects image quality. **4**
- ii)** Explain what a *Progressive JPEG* is and describe the advantages of using Progressive JPEGs. **4**

Total 30 Marks**QUESTIONS CONTINUE ON NEXT PAGE**

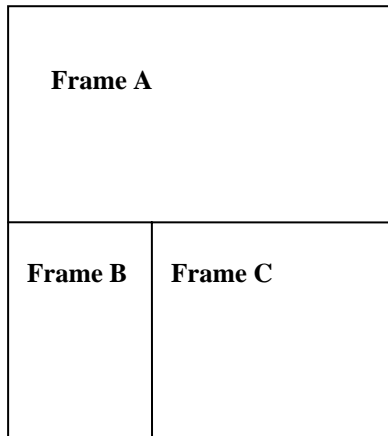
QUESTION 2**Marks**

- A) There are several XML languages for the web that are well established, explain each of the following: **8**
- i) RSS (Really Simple Syndication or RDF Site Summary)
 - ii) SVG (Scalable Vector Graphics)
 - iii) SMIL (Synchronized Multimedia Integration Language)
 - iv) MathML (Mathematical Markup Language)
- B) i) Briefly explain what XHTML is. **2**
- ii) List SIX (6) syntax requirements of well-formed XHTML documents. **6**
- C) Explain what *character data (CDATA)* is and describe how it is interpreted by a browser. **4**
- D) Briefly describe the following xml attributes:
- i) xmlns **2**
 - ii) lang and xml:lang **2**
- E) Explain what DOCTYPE Switching is and explain why it is important to declare the Document Type at the beginning of the document. **6**

Total 30 Marks**QUESTIONS CONTINUE ON NEXT PAGE**

QUESTION 3**Marks**

- A) Explain the steps that are followed to create a link to a document on your computer. **4**
- B) State THREE (3) common errors in writing relative pathnames. **6**
- C) i) Define a *frame* and explain why frames are useful in displaying and designing a web site. **4**
- ii) Build a framed document that looks like diagram below (Frame C is wider than Frame B). It should have three frames: two horizontal frames and the second horizontal frame divided into 2 vertical frames. **6**



- D) Explain what the <tbody>, and <thead> tags are and how they are used. What kinds of tables use them most often? **4**

QUESTIONS CONTINUE ON NEXT PAGE

E) What will the FORM produced by the following code look like?

6

Assume that the pages being imported are blank with white backgrounds and that the dimensions of the screen are 800 by 600. Sketch the layout, approximating the dimensions.

```
<form>
```

Please fill up this form

```
<br> <br>
```

First name: <input type="text" name="firstname">

Last name: <input type="text" name="lastname">

```
<br> <br>
```

sex:

```
<input type="radio" name="sex" value="male"> Male
```

```
<input type="radio" name="sex" value="female"> Female
```

```
<br> <br>
```

hobbies:

```
<input type="checkbox" name="hobbies" value="travelling" /> Travelling
```

```
<input type="checkbox" name="hobbies" value="reading" /> Reading
```

```
<input type="checkbox" name="hobbies" value="swimming" /> Swimming
```

```
<br> <br>
```

```
<textarea rows="10" cols="30">
```

Please type your comment here.

```
</textarea>
```

```
<br> <br>
```

```
<input type="submit" value="Send">
```

```
<input type="reset" value="Reset">
```

```
</form>
```

Total 30 Marks

END OF PAPER