



The University of Fiji

School of Science and Technology

Department of IT and Computer Science

ITC314

Web Design and Programming

Semester I, 2012

FINAL EXAMINATION PAPER

Time Allowed: 3 hours [10 minutes extra allowed for Reading the Paper]
Total Marks: 50

Instructions

- There is 8 Questions, all of which are compulsory. Answer all questions in the Answer Booklet.
- For these questions write your answer on the answer sheets provided by the instructor. The marks allocated for each of the questions are written in brackets.
- Marks will be given for working. Write your statements and working clearly in to gain maximum marks.
- You may ask for extra sheets from the supervisors.
- This booklet contains 4 pages including this page. Hand in your answers sheets only.

GOOD LUCK!

Questions:

1. Design Basics

[2+2+2+1 = 7 marks]

Select a website which you think is aesthetically pleasing and well designed. Applying the principles that you have learned, list specific things that make this design successful.

- What is it about this particular design that you find intriguing and why do you think this design is successful?
- What does it mean by Unity and how it is achieved?
- Describe if and how the design of your chosen website is unified? What is the visual balance; symmetrical or asymmetrical?
- What is the focal point of your chosen website?

2. Web Basics

[3+5 = 8 marks]

- Explain what really happens when ASP.NET receives a request for the `CurrencyConverter.aspx` page?
- Write and explain the code for the Currency Converter discussed in the course: `CurrencyConverter.aspx` and `CurrencyConverter.aspx.cs`

3. Themes and Master Pages

[2+2+2+2 = 8 marks]

- What is the benefit of ASP.NET Masterpages?
- What is the benefit of ASP.NET Themes?
- Explain Styles in website design.
- How are Master Pages and Content Pages connected?

5. Navigation

[2+2 = 4 marks]

- Briefly describe, what ASP.NET offer for navigation?
- What are sitemaps and breadcrumbs?

6. State Management

- What is View State? How do you store variable named counter, with value 1, into the ASP.NET page's Viewstate?
- What are two techniques of transferring information between pages?

7. Working with Data – ADO.NET Fundamentals [3+3 = 6 marks]

- ADO.NET relies on the functionality of a small set of core classes which can be divided into two groups: those that are used to contain and manage data and those that are used to connect to a specific data source. Give atleast three examples of each.
- Draw a diagram to show the different layers that are part of web applications using ADO.NET.

8. Security [4+4+5 = 13 marks]

- Draw a diagram to show the several areas security could be applied to secure an ASP.NET application.
- Explain the two concepts that form the basis of security in Web Applications.
- The following example is a section from the web.config file which configures the application to use forms authentication by using the <authentication> tag.

```
<configuration>
  <system.web>
    ...
    <authentication mode="Forms">
      <forms name="MyAppCookie"
        loginUrl="~/Login.aspx"
        protection="All"
        timeout="30" path="/" />
    </authentication>
  </system.web>
  ...
</configuration>
```

Add access control rules to the <authorisation> section of the web.config to:

- Permit all users to use the application, even those who haven't been authenticated.

- Prevent anonymous users from using the application.
- Deny all users access to the directory.
- Deny anonymous users access to a file.
- Deny users Matthew and Sarah to the application.

The End