

**FINAL  
ALTERNATIVE ASSESSMENT**

(COVER PAGE)

Session : August 2021

Programme : Diploma in Computer Science (DCS)

Course : **DCS2102: Rapid Application Development**

Date of Examination : 9 December 2021 (Thursday)

Time : 12.00noon – 2.30pm Reading Time : Nil

Duration : 2 Hours 30 Minutes

**Special Instructions :**

Question 1: This section consist of **FOUR (4)** questions. Answer **ALL** questions.

Question 2: This section consist of **SIX (6)** questions. Answer **ALL** questions.

Question 3: This section consist of **SIX (6)** questions. Answer **ALL** questions.

Question 4: This section consist of **TWO (2)** questions. Answer **ALL** questions.

Material permitted : Non-Programmable Scientific Calculator

Materials provided : Nil

Examiner(s) : **Nuur Shuhada Mohd Najib**

Chief Moderator : Nadhrah Bt Hadi

*This paper consists of **6** printed pages, including the cover page*

DIPLOMA IN COMPUTER SCIENCE PROGRAMME (DCS)  
DCS2102: RAPID APPLICATION DEVELOPMENT  
FINAL ALTERNATIVE ASSESSMENT: AUGUST 2021 SESSION

**Question 1 (25 Marks)**

**Instruction:** This section consist of **FOUR (4)** questions. Answer **ALL** questions.

- a) Rapid Application Development was a response to plan-driven waterfall process, developed in 1970s and 1980s.
- i. Define the Rapid Application Development Methodology (1 Mark)
  - ii. Explain the suitable condition to choose this methodology for development. (2 Marks)
- b) There are FOUR (4) phases of Martin Approach in Rapid Application Development and explain each phases
- i. List all the phases in the Rapid Application Development Methodology (4 Marks)
  - ii. Explain each phases (4 Marks)
- c) List out the modelling diagrams involves in RAD? (4 Marks)
- d) As a software developer you are required to develop a mobile application for educational purpose.
- i. List FOUR (4) suitable features for your application. (2 Marks)
  - ii. Implement the RAD approach on your development and explain the steps involves in each of the phases. (8 Marks)

**Question 2 (25 Marks)**

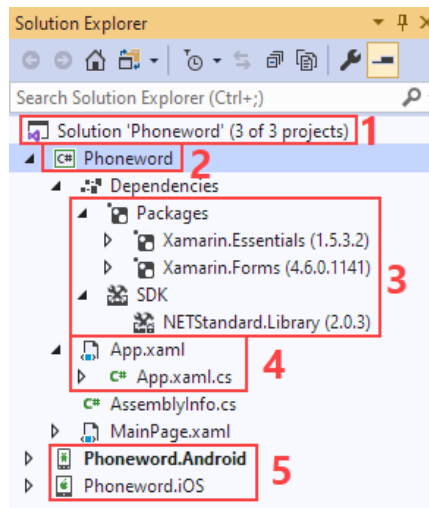
**Instruction:** This section consist of **SIX (6)** questions. Answer **ALL** questions.

a) Explain Xamarin.Forms approach based on your own understanding.

(2 Marks)

b) Label and give details for each of the components in figure below;

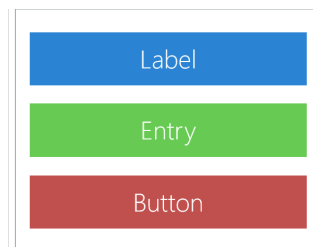
(10 Marks)



c) Given the output of a layout as below. Add control to the StackLayout using the Children property.

(3 Marks)

```
var layout = new StackLayout{
    Orientation =
    StackOrientation.Vertical
```



d) List **FOUR (4)** types of layout used in Xamarin form other than StackLayout.

(4 Marks)

- e) Write code for the following conditions in Xamarin form for application user. (4 Marks)
- a. Alert dialog with accept and cancel button
  - b. Native platform action sheet to choose from several button
  - c. Change visual state
  - d. Set Focus to element
- f) What are the steps to add permission to Android project to allow calls? (2 Marks)

**Question 3 (25 Marks)**

**Instruction:** This section consist of **SIX (6)** questions. Answer **ALL** questions.

- a) Determine THREE (3) types of caching in ASP.net. (3 Marks)
- b) Explain each of the following ASP.net security controls; (5 Marks)
- a. <asp:Login>
  - b. <asp:LoginName>
  - c. <asp:LoginStatus>
  - d. <asp:LoginView>
  - e. <asp>PasswordRecovery>
- c) Describe the function of each of the following asp.net code; (3 Marks)
- a. `userInfo.Expires = DateTime.Now.AddHours(1);`
  - b. `services.AddControllersWithViews();`
  - c. `<asp:FileUpload ID="FileUpload1" runat="server" />`

d) Identify SEVEN (7) differences between Dataset and Datareader.

(7 Marks)

<b>DATASET</b>	<b>DATAREADER</b>

e) What are the elements in CRUD operation?

(2 Marks)

f) Based on your understanding on the CRUD operation, explain the following code;

(5 Marks)

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Mvc;

namespace CRUDDemo.Controllers
{
    public class CRUDController : Controller
    {
        // a
        public ActionResult create()
        {
            return View();
        }
        // b
        [HttpPost]
        public ActionResult create(Student model)
        {
            // c
            using(var context = new demoCRUDEntities())
            {
                // d
                context.Student.Add(model);
                context.SaveChanges();
            }
            string message = "Created the record successfully";

            // e
            ViewBag.Message = message;
            return View();
        }
    }
}

```

<b>a</b>	
<b>b</b>	
<b>c</b>	
<b>d</b>	
<b>e</b>	

**Question 4 (25 Marks)**

**Instruction:** This section consist of **TWO (2)** questions. Answer **ALL** questions.

a) Cloud services are designed to provide easy, affordable access to applications and resources, without the need for internal infrastructure or hardware.

i. List FIVE (5) example of public cloud provider.

(5 Marks)

ii. What are the cloud services provided by Microsoft Azure?

(2 Marks)

iii. What are the differences between Public Cloud and Private Cloud

	<b>Public Cloud</b>	<b>Private Cloud</b>
<b>Infrastructure</b>		
<b>Requirement</b>		
<b>Scalability</b>		
<b>Maintenance</b>		
<b>Expenses</b>		
<b>Performance</b>		
<b>Uses</b>		

(14 Marks)

b) List FOUR (4) similar features that AWS, Microsoft Azure and Google Cloud Platform have.

(4 Marks)

**~THE END~**

*DCS2102 (F)/ August 2021 Session/ formatted*