



Philadelphia University
Faculty of Engineering

Marking Scheme

Examination Paper

BSc CE

Advanced Programming Language (630521)

Final Exam

Second semester

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Section 1

Weighting 40% of the module total

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Marking Scheme

Advanced Programming Language (630521)

The presented exam questions are organized to overcome course material through 4 questions.
The *all questions* are compulsory requested to be answered.

Marking Assignments

Question 1 This question is attributed with 10 marks if answered properly; the answers are as following:

- NET's collection of prepackaged classes and methods is called -----
 - WCL
 - PPCM
 - NCL
 - FCL
- _____ is a mechanism for converting value data types into reference data types
 - Casting
 - Boxing
 - Conversion
 - Transform
- What is the use of the WebForm.aspx.cs file?
 - Hold the C# code for the codebehind module.
 - Hold the control configuration for the form.
 - Hold the C# code that will be translated into HTML on the client.
 - Hold the HTML code for the form.
- The first parameter of the event handler refers to the object that carries information about
 - Event
 - Events Counter
 - The control that triggered the event
 - None of above
- What is the purpose of the following code segment?

```
if ( !IsPostBack )
{
    List1.Items.Add("C#")
}
```

 - To populate the DataAdapter every time the web page is displayed.
 - To populate the DataSet every time the web page is displayed.
 - To populate the DataSet the first time the web page is displayed.
 - To populate the DataAdapter the first time the web page is displayed.
- The attribute that must be specified with all ASP.NET Mobile controls , and the <form> element as well is _____
 - Text
 - Runat
 - ID
 - BackColor
- The maximum number of command objects that the DataAdapter can contain is _____
 - 1
 - 2
 - 3
 - 4
- The CommandBuilder will take the syntax from DataAdapter and generate the corresponding _____ objects.
 - UpdateCommand, InsertCommand, and DeleteCommand
 - SelectCommand, InsertCommand, and DeleteCommand
 - UpdateCommand, InsertCommand and SelectCommand
 - UpdateCommand, DeleteCommand and SelectCommand
- A data provider namespace created to get general access to different data sources is _____
 - System.Data.ODBC
 - System.Data.OleDb
 - System.Data
 - System.Data.SqlClient
- NET Data Managed Provider contains the following objects.
 - DataReader, DataAdapter, Connection and DataSet.
 - DataReader, Command, Connection and DataSet.
 - DataReader, DataAdapter, Command and DataSet.
 - DataReader, DataAdapter, Connection and Command.

Question 2: This question is attributed with 10 marks if answered properly,

Question 2.a

(4 marks)

The complete code for this sub question as the following:

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.3//EN"
    "http://www.wapforum.org/DTD/wml13.dtd">
<wml>
<template>
  <do type="options" label="Result !" >
    <go href="#output"/>
  </do>
</template>
<card id="perserv" title="Personal Services">
<onevent type="onenterforward">
<refresh>
<setvar name="Term" value=""/>
<setvar name="Mail" value=""/>
<setvar name="Optm" value=""/>
<setvar name="Mod" value=""/>
</refresh>
</onevent>
  <p>Select Your Services: </p>
  <p>
  <a href="#Term"> Terminal</a> <br/>
  <a href="#Mail"> MailBox</a> <br/>
  <a href="#Sett"> Setting</a> <br/>
  </p></card> (1 mark)
  <card id="Term" title="Terminal">
  <p> Terminal : </p>
  <p>
  <select name="Term">
  <option value="Event">Event</option>
  <option value="Timeout">Timeout</option>
  <option value="Limit">Limit</option>
  </select></p></card> (1 mark)
  <card id="Mail" title="MailBox">
  <p> MailBox: </p>
  <p><select name="Mail">
  <option value="Time">Time</option>
  <option value="From">From</option>
  <option value="To">To</option>
  <option value="HeadLine">HeadLine</option>
  </select></p></card> (1 mark)
  <card id="Sett" title="Setting">
  <p> Setting: </p>
  <p>Optimization:
  <input name="Optm" maxlength="15" /> <br/>
  Model:
  <input name="Mod" maxlength="15" /> <br/>
  </p>
  </card> (1 mark)
  <card id="output" title="Results" ontimer="#perserv">
  <timer name="back" value="50"/>
  <p>
  Your Personal entry:<br/>
  Terminal: $(Term) <br/>
  MailBox: $(Mail) <br/>
  Setting: <br/>
  Optimization:$(Optm) <br/>
  Model:$(Mod) <br/></p> </card></wml>
```

Question 2.b

(3 marks)

The complete code for this sub question as the following:

```
<template>
  <do type="options" label="Result !" >
    <go href="#output"/>
  </do>
```

```
</template>
```

(1.5 marks)

```
<card id = "output" title = "Results" ontimer = "#perserv">
```

```
<p>
Your Personal entry:<br/>
Terminal: $(Term) <br/>
MailBox: $(Mail) <br/>
Setting: <br/>
Optimization:$(Optm) <br/>
Model:$(Mod) <br/>/p> </card></wml>
```

(1.5 marks)

Question 3.c

(2 marks)

The complete code for this sub question as the following:

```
<onevent type="onenterforward">
<refresh>
<setvar name="Term" value=""/>
<setvar name="Mail" value=""/>
<setvar name="Optm" value=""/>
<setvar name="Mod" value=""/></refresh></onevent>
```

Question 3.d

(1 mark)

The complete code for this sub question as the following:

```
<card id = "output" title = "Results" ontimer = "#perserv">
<timer name = "back" value = "50"/>
```

Question 3 This question is attributed with 10 marks, if answered properly.

Question 3.1

The complete code for this question as the following:

```
private void Command1_Click(object sender, System.EventArgs e)
{
    OleDbConnection conn1 = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0;
Data Source = c:\DocumentInformation.mdb");
    OleDbCommand comm1 = new OleDbCommand ();
    comm1.CommandText = "select * from Documents";
    comm1.Connection = conn1;
    conn1.Open();
    OleDbDataReader reader1 = comm1.ExecuteReader();
    this.ObjectList1.Items.Clear();
    ObjectList1.DataSource = reader1;
    ObjectList1.DataBind();
    conn1.Close(); }
(1 mark)
(1 mark)
(1 mark)
(1 mark)
```

Question 3.2

The complete code for this question as the following:

```
private void Command1_Click(object sender, System.EventArgs e)
{
    OleDbConnection conn = new OleDbConnection(@"Provider = Microsoft.Jet.OLEDB.4.0;
Data Source = c:\DocumentInformation.mdb");
    OleDbCommand comm = new OleDbCommand ();
    comm.CommandText = "select * from Documents";
    comm.Connection = conn;
    conn.Open();
    OleDbDataReader reader = comm.ExecuteReader();
    while (reader.Read())
    {
        Label lb = new Label();
        output = " " + reader[0].ToString() + " " + reader[1].ToString() + "
" + reader[2].ToString() + "
" + reader[3].ToString() + " " + reader[4].ToString() + " " + reader[5].ToString();
        lb.Text = output;
        this.Form1.Controls.Add(lb);
    }
    Reader.Close();
    conn.Close();
}
(1 mark)
(2 marks)
(3 marks)
```

Question 4 This question is attributed with 10 marks, if answered properly.

The complete code for this question as the following:

```

OleDbConnection conn = new OleDbConnection(@"provider = Microsoft.Jet.OLEDB.4.0;
Data Source = c:\NorthWind.mdb");
conn.Open();
DataSet ds = new DataSet(); (1 mark)
OleDbDataAdapter sup = new OleDbDataAdapter("select * from Suppliers",conn);
OleDbDataAdapter order = new OleDbDataAdapter("select * from Orders",conn);
OleDbDataAdapter detail = new OleDbDataAdapter("select * from [Order
Details]",conn);
OleDbDataAdapter prod = new OleDbDataAdapter("select * from Products",conn);
OleDbDataAdapter cust = new OleDbDataAdapter("select * from Customers",conn); (2 marks)

sup.Fill(ds,"Suppliers");
order.Fill(ds,"Orders");
detail.Fill(ds,"[Order Details]");
prod.Fill(ds,"Products");
cust.Fill(ds,"Customers"); (1 mark)

DataRelation supprodrel = ds.Relations.Add("supprod",
ds.Tables["Suppliers"].Columns["SupplierID"],
ds.Tables["Products"].Columns["SupplierID"]);
DataRelation proddetrel = ds.Relations.Add("proddet",
ds.Tables["Products"].Columns["ProductID"],
ds.Tables["[Order Details]"].Columns["ProductID"]);
DataRelation orderdetailrel = ds.Relations.Add("orddet",
ds.Tables["Orders"].Columns["OrderID"],
ds.Tables["[Order Details]"].Columns["OrderID"]);
DataRelation custordrel = ds.Relations.Add("custordrel",
ds.Tables["Customers"].Columns["CustomerID"],
ds.Tables["Orders"].Columns["CustomerID"]); (2 marks)
foreach (DataRow sub in ds.Tables["Suppliers"].Rows)
{
Response.Write("Company Name: "+sub["CompanyName"]+"<br/>");
foreach (DataRow prod1 in sub.GetChildRows(supprodrel))
{
Response.Write("Product Name: "+prod1["ProductName"]+"<br/>");
Response.Write("Category ID: "+prod1["CategoryID"]+"<br/>");
foreach (DataRow detail1 in prod1.GetChildRows(proddetrel))
{
Response.Write("Order Date: "+
detail1.GetParentRow(orderdetailrel)["OrderDate"]+"<br/>");
Response.Write("Phone: "+
detail1.GetParentRow(orderdetailrel).GetParentRow(custordrel)["Phone"]+"<br/
>");
}
}
}
conn.Close(); (4 marks)
}

```