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MANIPAL INSTITUTE OF TECHNOLOGY
(Constituent Institute of Manipal University)
MANIPAL-576104

VII SEMESTER B.TECH.(COMPUTER SCIENCE AND ENGINEERING) DEGREE
END-SEMESTER EXAMINATION-DECEMBER 2013
SUBJECT: ADVANCED INTERNET TECHNOLOGY (CSE 403)
DATE: 09-12-2013

TIME: 3 HOURS MAX.MARKS: 50

Instructions to Candidates

- **Note:** Answer any **FIVE** full questions.

1.A. Explain four features of Visual Studio.
1.B. How value types and reference types behave under the circumstances such as assignment, equality and passing parameters by value and by reference.
1.C. Explain the following with suitable example in C#
(i) Containment
(ii) Inheritance
(iii) Generics
(iv) Enumeration
(v) Delegates (2+3+(1+1+1+1+1))

2.A. Explain postback processing sequence?
2.B. Mention any four reasons why Web controls are better than HTML controls.
2.C. With a neat diagram explain direct data access with ADO.NET. (5+2+3)

3.A. Differentiate between Session State and Application State using any six parameters.
3.B. Explain Master page and Content page with an example.
3.C. Write short notes on when to use Caching? (6+2+2)

4.A. Consider a sample EmployeeList.xml file as shown in Fig.Q.4.A.1.

```
<?xml version="1.0" encoding="utf-8" ?>
<Employees>
  <Employee Id="1" Name="Sachin">
     <Department>CSE</Department>
  </Employee>
  <Employee Id="2" Name="Dravid">
    <Id>2</Id>
    <Name></Name>
    <Department>IT</Department>
  </Employee>
  <Employee Id="3" Name="Dhoni">
    <Department>CSE</Department>
  </Employee>
</Employees>
```

Fig.Q.4.A.1.: Sample EmployeeList.xml File

Id	Details	
1	**Name:** Sachin **Dept:** CSE	Select
2	**Name:** Dravid **Dept:** IT	Select
3	**Name:** Dhoni **Dept:** CSE	Select

Fig.Q.4.A.2.: Sample Output

Develop a simple web application that reads employee data from EmployeeList.xml file and displays it in a GridView using dataset object as shown in Fig.Q.4.A.2.

Format the GridView as mentioned below:

- **Headers** - Change background color to "Gray" and Text color to "White" with bold font.
- **Data Rows** – Highlight rows which belong to CSE department.

4.B. Explain why most web applications don't use files.
4.C. Explain with example how to enable paging and sorting in GridView. (7+2+1)

5.A. Consider a "SuperMarket" database, containing "Customer" table whose schema is as shown in Fig.Q.5.A.

	Name	Data Type	Allow Nulls
🔑	Id	int	☐
	Name	varchar(50)	☐
	Phone	varchar(50)	☑

Fig.Q.5.A.: Customer table schema

Develop a simple web application that reads all names from the "Customer" table using disconnected data access and inserts the first three letters of customer name in capitals to a text file under "App_Data" folder.
5.B. Explain different stages of an ASP.NET Request.
5.C. Explain any four basic properties of the Page class. (5+3+2)

6.A. Explain Data Caching. Explain three key differences between Cache object and Application object.
6.B. Explain ASP.NET forms authentication with a neat diagram. Explain three steps to implement forms-based security.
6.C. Create a simple customer registration form as shown in Fig.Q.6.C.

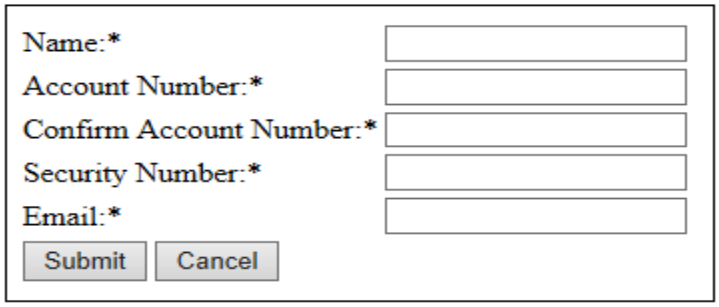

Fig.Q.6.C.: Customer Registration Form

Using Validation Controls, validate the fields as per the following requirements:

- All fields are mandatory.
- First Name should contain only capital letters.
- Account Number should be divisible by 10.
- Confirm Account Number should match Account Number.
- Security Number must be between 1 to 100.
- Email should contain an at (@) sign and dot (.) and allow non-whitespace characters only. (2+3+5)

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