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VII SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)
MAKEUP EXAMINATIONS, DEC 2017/JAN 2018
SUBJECT: INTERNET TECHNOLOGY [CSE 4101]
REVISED CREDIT SYSTEM
(20/12/2017)

Time: 3 Hours   MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

1A. Explain with neat diagrams, different technologies of .NET framework.   **5M**

1B. Create three classes in C# using the following instructions:
- Class named "*Person*", whose members are:
  - o "*Id*" - Automatic Property of type integer, which is accessible only by members inside the class or in any class that inherits from this class.
  - o "*Name*" - Automatic Property of type string, which is accessible by members in any class in the current assembly.
  - o "*Display*()" - Method which returns string formed by concatenating values of "*Id*" and "*Name*".
- Class named "*Student*", which derives from "*Person*" Class and contains definition for the following members:
  - o "*Grade*" - Automatic Property of type decimal, which is accessible only by members inside the class.
  - o "*Display*()" – Method which overloads "*Display*" method of the base class and returns string formed by concatenating values of "*Id*", "*Name*" and "*Grade*" separated by spaces.
- Class named "*College*", whose members are:
  - o "*Name*" – Property of type string, which is accessible by members of any class.
  - o "*Students*" – Generic Collection restricted to "*Student*" Object.
  - o "*Display*()" – Method which returns a string formed by concatenating all student names in "*Students*" collection.   **3M**

1C. Tabulate any four differences between Arrays and ArrayLists in C#   **2M**

2A. Compare Session State and Application State with any five suitable parameters   **5M**

2B. With a neat diagram, explain server-side page postback processing sequence in ASP.NET   **3M**

2C. Mention which validation control is appropriate for each of the scenarios given below:
- Validate password and retype password are the same
- Validate age field should be less than 150 and greater than 15
- Validate either home phone number or office phone number is entered
- Validate if email is of the correct format   **2M**

3A. Consider a database named as "University" containing tables called "Student" and "Department". [Schemas give in Fig Q.3.A.1 and Fig Q.3.A.2]

Column Name	Data Type
SName	varchar(10)
🔑 SID	varchar(10)
Sem	varchar(10)
CGPA	numeric(5, 2)
DepID	varchar(5)

Column Name	Data Type
🔑 DepID	varchar(5)
DepName	varchar(50)
Location	varchar(50)

Fig Q.3.A.1 : "Student" table   **Fig Q.3.A.2 : "Department" table**

Develop a simple web application to display all the student information having CGPA greater than 9.0 with their department name. Write two seperate C# (cs) code snippets to access data using disconnected data access and direct access methods respectively. Give two reasons why one method is better than the other in this scenario. **5M**

3B. Explain Master Page and Content Page in ASP.NET with an example. **3M**

3C. Explain with example, single value data binding. **2M**

4A. For the schema of the "student" table given in Fig Q.3.A.1, develop a simple web application as shown in Fig Q.4.A.1, to display student information in a *GridView*.

Name	Details		
Sachin	**Sem:** 5 **CGPA:** 8.50	Select	Edit
Dhoni	**Sem:** 7 **CGPA:** 8.00	Select	Edit
1 2			

Fig Q.4.A.1 : Sample Output

- Extract the information from database using appropriate data source control.
- User should be able to sort records by "SName"
- Show only 2 records at a time in GridView
- User should be allowed to edit only "SName" and "CGPA" **5M**

4B. How can XML be validated? What is the use of XML Namespaces? **3M**

4C. Explain any four disadvantages of using files to store data. **2M**

5A. Explain guidelines, benefits and types of caching in ASP.NET **5M**

5B. Explain the benefits of using AJAX. Explain how AJAX is implemented in ASP.NET. **3M**

5C. Explain windows based security in ASP.NET? Write the three steps to be followed to implement windows based security with known users. **2M**

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