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06CS/IS832

Eighth Semester B.E. Degree Examination, June 2012
Web 2.0 and Rich Internet Applications

Time: 3 hrs. Max. Marks:100

Note: ***Answer FIVE full questions, selecting atleast TWO questions from each part.***

PART – A

1 a. Substantiate the following statements :
Web 2.0 needs collaborative computing
"Content is king" has been rewritten as "Data is king". **(04 Marks)**

b. Explain the role of SOAP and WSDL in web services. **(05 Marks)**

c. What are mixed literals? Give the Java script and JSON examples to write mixed literals. **(04 Marks)**

d. Consider the following XML content :

```
<bookinfo>
  <books>
    <book>
      <isbn> 910092313</isbn>
      <author>
            <name> A </name>
            <city> C </Cname>
            <pno> 9813521617 </pno>
      </author>
      <title> data structures </title>
</books>
<isbn> 92093313 </isbn>
<author>
        <name> T </name>
        <city> S </city>
        <pno> 9419381210 </pno>
</author>
<title> Data structures </title>
</book>
</books>
</bookinfo>
```

Convert this "book" XML file into JSON. Compare and contrast XML and JSON for this example. **(07 Marks)**

2 a. Depict the traditional web application model and AJAX web application models. Discuss the important principles of good AJAX applications specified by Michael Mahemoff. **(08 Marks)**

b. Explain how Gmail and A9 enables the effective use of AJAX. **(04 Marks)**

c. Develop a dynamic web application, in which a student name is retrieved given the USN. Use the hidden frame GET request technique for the same. Assume that student data is available in the table "Student" with the field, <name, USN>. **(08 Marks)**

3 a. Write a cross browser way of creating XHR objects. **(05 Marks)**
b. Bring out the disadvantages of XHR. **(04 Marks)**
c. Differentiate no-cache and no-store directives. **(02 Marks)**
d. Explain submission throttling procedure with a flow diagram. Give the various ways in which "polling" mechanism is implemented on the web. **(09 Marks)**

4 a. Enlist the various advantages of flash player. **(04 Marks)**
b. Compare and contrast traditional and flex web applications. **(06 Marks)**
c. Write the flex application source-compile-deploy work flow of flex application. **(03 Marks)**
d. Give the general structure of the MXML document and explain all the elements involved. **(07 Marks)**

PART – B

5 a. Discuss the different places for embedding action script within flex. **(08 Marks)**
b. Translate the following MXML tag into equivalent action script code :
<! XML version = "1.0" encoding = "utf-8"?>
<mx : Application xmlns : mx = "http : // adobe.com /2006/MXML" Layout = "absolute">
<mx : Button id = "Button"/>
</mx : application>. **(05 Marks)**
c. Consider the following XML data for 2 students :

```
<students>
<student>
        <usn> 100 × 12 </usn>
        <name> Raj </name>
        <sem> 5 </sem>
</student>
<student>
        <usn> 100 × 13 </usn>
        <name> shyam </name>
        <sem> 5 </sem>
</student>
</students>
```

(07 Marks)

6 a. Discuss the different internal life cycle events of flex application. **(03 Marks)**
b. Create an MXML application that creates a canvas with a background color "blue". It adds a public method that allows loading application to set the background color. **(06 Marks)**
c. With a class diagram, explain the different container types of flex framework. **(07 Marks)**
d. Create the equation $x_1^2 + y_1^2 = z^2$, using flex layout managers. **(04 Marks)**

7 a. Explain the common UI component properties that can always be counted upon. **(06 Marks)**
b. Create a data grid with columns <empname, designation, address> using,
i) MXML ii) Action script for four sample data records. **(06 Marks)**
c. Consider a college having four departments CS, IS, EC, MECH.
CS has BE section A, BE section B, M Tech
IS has BE section A, BE section B
EC has only one BE section
MECH has BE section A, BE section B, M. Tech design, M.Tech automobile
Display this information in flex, using tree control and control bars. **(08 Marks)**

8 a. With a block diagram, explain the working of a simple Mashup application using HTTP. **(07 Marks)**
b. Explain the mechanism to create a "NEWS TICKER", using AJAX. **(07 Marks)**
c. Explain the mechanism of using webservice components with MXML. **(06 Marks)**

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