MANIPAL UNIVERSITY
FOURTH SEMESTER M. Sc. TECH EMBEDDED SYSTEMS DEGREE EXAMINATION – NOVEMBER 2015
SUBJECT: ESD 616.8 – WEB APPLICATION DEVELOPMENT (ELECTIVE 2)
Tuesday, November 24, 2015

Time: 10:00 – 13:00 Hrs. Max. Marks: 100

1. What is Normalization? Explain different Normalization forms.

    (10 marks)

2. Consider the following relations for a database that keeps track of business trips of salespersons in a sales office.

    SALESPERSON(Eid , Name StartYear, DeptNo)

    TRIP (Eid, FromCity, ToCity, DepartureDate, ReturnDate, TripId)

    EXPENSE (TripId , AccountNumber, Amount)

    Specify the foreign keys for the above schema, stating any assumptions you make. Then specify the following queries.

    (10 marks)

3. With reference to the following Schemas, write the SQL queries:

    Sailors(sid, sname, rating, age)

    Boats(bid, bname, color)

    Reserves(sid, bid, day)

    i)   Write the CREATE TABLE query for the above tables, giving all the necessary details, keys, and other constraints.
    ii) Write the INSERT query to insert four records in all the above tables.
    iii) Find the names of sailors who have reserved a red or a green boat.
    iv) Find the name and age of the oldest sailors.
    v)   For each red boat, find the number of reservations for this boat.

    (2 marks × 5 = 10 marks)

4. Explain the events onkeypress and onabort. Write a program to display the date.

    (5+5 = 10 marks)

5. Write a CSS script to implement position: absolute and position: relative properties. Explain the following properties.

    i)   Font-style
    ii) Z-index
    iii) text-align

    (3+4+3 = 10 marks)

6.   Build a web application which has a text box and a dropdown of few numbers. On entering the name in the provided textbox and selecting the number in the dropdown, the values should be saved in the browser memory. Later in a different HTML page, Chosen number of textboxes should be created with the name as its placeholder.

(10 marks)

7.   Explain the XMLHttpRequest Object? With regard to XMLHttpRequest Object explain GET and POST methods?

(10 marks)

8.   What are Web Services? What make them so crucial?

(10 marks)

9.   Write a web service program to display all the functions of a calculator.

(10 marks)

10.   What is Service Oriented Architecture? Explain necessity of Service Oriented Architecture?

(10 marks)

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