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Code : 051607

B.Tech 6th Semester Exam., 2018

WEB APPLICATION DESIGN AND
DEVELOPMENT

Time : 3 hours

Full Marks : 70

Instructions:

- (i) All questions carry equal marks.
- (ii) There are **EIGHT** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Choose the correct option for each of the following (any seven) :

(a) Which of the following headers must be included in Java program to establish database connectivity using JDBC?

- (i) Import java.sql.*;
- (ii) Import java.sql.odbc.jdbc.*;
- (iii) Import java.jdbc.*;
- (iv) Import java.sql.jdbc.*;

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(b) DriverManager.getConnection(____, ____).

What are the parameters that are included?

- (i) URL or machine name where server runs, Password, User ID
- (ii) URL or machine name where server runs, User ID, Password
- (iii) User ID, Password, URL or machine name where server runs
- (iv) Password, URL or machine name where server runs, User ID

(c) Database server is responsible for which of the following?

- (i) Database storage
- (ii) Data processing logic
- (iii) Data presentation logic
- (iv) All of the above

(d) An application program interface (API) is which of the following?

- (i) The same thing as ODBC
- (ii) Middleware that does not provide access to a database
- (iii) Middleware that provides access to a database
- (iv) The same thing as JDBC

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(e) Three-tier architecture includes which of the following?

- (i) Three server layers
- (ii) A client layer and two server layers
- (iii) Two client layers and one server layer
- (iv) Three client layers

(f) When a remote session bean is used in EJB?

- (i) If EJB client is in same environment where ebb session bean is to be deployed, then we use remote session bean
- (ii) If EJB client is in different environment where ebb session bean is to be deployed, then we use remote session bean
- (iii) By default we use remote session bean
- (iv) None of the above

(g) Which of the following is true for EJB?

- (i) EJB is server-side component architecture for distributed applications in Java
- (ii) EJB facilitates scalable, secure and transaction-oriented applications
- (iii) EJB specification allows different vendor implementations of it
- (iv) All of the above

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(h) Give the full form of BSD.

- (i) Berkeley Software Distribution
- (ii) Berkeley Socket Distribution
- (iii) Berkeley System Distribution
- (iv) None of the above

(i) Which steps occur when establishing a TCP connection between two computers using sockets?

- (i) The server instantiates a ServerSocket object, denoting which port number communication is to occur on
- (ii) The server invokes the accept() method of the ServerSocket class. This method waits until a client connects to the server on the given port
- (iii) After the server is waiting, a client instantiates a socket object, specifying the server name and port number to connect to

(iv) All of the above

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- Q1) What is remote method invocation (RMI)?
- (i) RMI allows us to invoke a method of Java object that executes on another machine
 - (ii) RMI allows us to invoke a method of Java object that executes on another thread in multithreaded programming
 - (iii) RMI allows us to invoke a method of Java object that executes parallelly in same machine
 - (iv) None of the above

2. Write the steps of creating JDBC connection. Explain the purpose of using each type of JDBC connection.

3. What is JavaScript and how can we add JavaScript onto a Web page? Write a JavaScript program that accepts two integers and displays the larger.

4. Explain event handling. Write a program in which we input user password and it returns the input value as authenticate and validate.

5. Explain EJB and its architecture in detail.

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6. Compare between JSP and Servlet with examples. Explain Servlet life cycle in detail.
7. Write a client server program to send message from client to server using Java socket programming, TCP and UDP.
8. How to create Web applications and its steps for deployment? Explain with examples.

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