**Question Bank**

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| **Module – 1: Servlet** | | |
|  | Define Servlet. Explain servlet life cycle and its advantages over CGI. | |
|  | Write a java servlet program to implement and demonstrate get() and post() methods using HTTP servlet class | |
|  | Define Session Tracking in java. Explain how the session tracking is implemented in java. | |
|  | With the help of java program illustrate the sending of cookie in servlets. | |
|  | Write a java servlet program for implementing the following:   * Accept username and password from HTML page. * Login verification using fixed string value * Appropriate message to be displayed using the requestDispatcher method and sendRedirect method. | |
|  | Write a servlet method to keep track of the users using cookies. | |
|  | With a neat diagram, explain the architecture of J2EE Application. | |
|  | What is server container? with a neat diagram, Describe the functions of Server container | |
|  | Explain any five J2EE APIs. | |
|  | What is a servlet? Mention the jobs of servlet. | |
|  | Compare servlet with CGI. | |
|  | With an example, describe the basic structure of a servlet. | |
|  | What is query data? Give an example. | |
|  | What is the need of SingleThreadModel interface? Give the syntax. | |
|  | Name the two methods associated with request object to read parameter name and its values. | |
|  | Write a servlet program to read three textbox values from an HTML form. | |
|  | Differentiate get and post methods. | |
|  | Name any 5 fields of http request headers. | |
|  | Design a servlet code to display http request headers. | |
|  | How is compression technique used to display the large web pages. | |
|  | Give an example to restrict access to web pages using http request headers. | |
|  | Write short notes on  a. sendError() b. sendRedirect() | |
|  | List the five major http status codes along with their purpose. | |
|  | Write a JAVA Servlet Program to Auto Web Page Refresh (Consider a webpage which is displaying Date and time). | |
|  | What is a cookie? List the steps to create, store, read and destroy. | |
|  | Mention the importance of cookies. | |
|  | List any two problems caused out of cookies. | |
|  | Write the difference between persistent cookie and non-persistent cookie. | |
|  | Explain any five methods associated with cookies. | |
|  | Write a JAVA Servlet Program using cookies to remember user preferences. | |
|  | What is a Session? | |
|  | Why should a session be maintained? | |
|  | How session is maintained? | |
|  | What are the different ways handling sessions in servlet? | |
|  | What are hidden form fields? How they are created. | |
|  | Write a servlet program to demonstrate the init() method to initialize the servlet. | |
|  | Discuss Advantages of JSP over Servlets. | |
|  | Describe JSP and explain the process of writing JSP with an example. | |
|  | Distinguish between JSP and Servlet | |
| **Module-2: JSP and Controlling the structure of generated servlets** | | |
|  | Discuss various types of JSP tags. | 10 |
|  | Explain the JSP scripting element tag and directive tags in JSP in detail. | 10 |
|  | Illustrate the differences in how the three JSP scripting elements are typically used by calling the java code. | 06 |
|  | With an example, explain the JSP scriptlets.[Read for all tags] | 05 |
|  | What are the uses of JSP expressions? Explain with examples | 05 |
|  | Read All the Page Directives. |  |
|  | Briefly explain the three types of directives used in JSP with illustration. | 10 |
|  | Read all the JSP action Tags. |  |
|  | Difference between the <jsp:include> tag and include directive tag. | 03 |
|  | Explain <jsp:plugin> action tag with an example. | 04 |
|  | List and explain all the attributes of applet tag. | 06 |
|  | What is Bean? Distinguish between JavaBean and Java Class. | 05 |
|  | Write a java JSP program to print 10 even and 10 odd Numbers. | 05 |
|  | Write a Java JSP program to implement verification of a particular user login and display a welcome page. | 10 |
|  | Write a java JSP program to get student information through html and create a java bean class, populate bean and display the same information through another JSP. | 10 |
|  | Write a java JSP program to get employee information through html and create a java bean class, populate bean and display the same information through another JSP. | 10 |
|  | Write a short notes on:   * Life cycle of JSP * applet tag * usebean tag * contentType and pageEncoding * errorPage and isErrorPage * isELIgnored * buffer and autoFlush * isThreadSafe | Each carry 5 marks |
| **Module 3: Annotations and JavaBeans** | | |
| 1 | What is a package in java? Mention its advantages. | Yt |
| 2 | How is a package created? Give an example. | 5 |
| 3 | Define Java annotation. When are they used? | 5 |
| 4 | Describe the working of built-in annotations in java. | 10 |
| 5 | How are jar files created and used? List options of jar files. | 8 |
| 6 | Write a short notes on   * 1. @Documented   2. @Target annotation   3. Custom annotation   4. @Retention   5. @Inherited | 5 each |
| 7 | What is Bean? Distinguish JavaBean and Java Class. | 5 |
| 8 | Define java bean and state its advantages. Explain the features of java bean. | 8 |
| 9 | Mention the purpose of introspection in java. | 4 |
| 10 | How are customizer and persistence associated with property editors? | 6 |
| 11 | Why are the property editors used? | 3 |
| 12 | Explain how to add color property to simple bean, with an example. | 10 |
| **Module 4: JDBC** | | |
|  | Explain the JDBC Architecture. | 05 |
|  | How does the JDBC application work? | 05 |
|  | Explain the various types of JDBC drivers. | 10 |
|  | Explain the JDBC process steps in detail. | 10 |
|  | Give the procedure to create the association between the database and the JDBC / ODBC bridge. | 05 |
|  | Explain the types of statement objects in JDBC with an example. | 10 |
|  | Briefly describe the situations where you should use prepared statement. | 04 |
|  | Write a JDBC program to select columns from an employee table using statement object. [Create object to Statement class and use executeQuery method] | 10 |
|  | Explain with the help of a simple program, how to use a prepared statement to process the result of “SELECT - - - - - - - ” SQL query. | 10 |
|  | When we use executeQuery(), executeUpdate(), executeBatch() methods? | 8 |
|  | Write a short notes on:   * Data types in SQL * SQL 3 data types * ResultSet * Statement Object * PreparedStatment Object * CallableStatment Object | each 5 |
|  | What are the different types of enterprise java beans? Explain. |  |
|  | Read each types of EJB. |  |
| **Module 5: Enterprises Java Beans** | | |
|  | What are the different types of enterprise java beans? Explain. | 10 |
|  | Read each types of EJB. |  |
|  | Design an EJB application that demonstrate working of Session Bean with appropriate business logic. | 10 |
|  | Design an EJB application that demonstrate working of MessageDriven Bean with appropriate business logic. | 10 |
|  | Design an EJB application that demonstrate working of Persistence Bean with appropriate business logic. | 10 |
|  | Read all types of Session Bean life cycle. |  |
|  | Write a brief note on the following:   1. Instance pooling/caching 2. Transactions 3. Security 4. Timers |  |
|  | Characteristics of good software |  |