```
JSONObjectjsObj = (JSONObject) obj;

String col_name = (String) jsObj.get("COLLEGE NAME");
double year = (Double) jsObj.get("YEAR OF ESTD");
long courses = (Long) jsObj.get("NO OF COURSES");
System.out.println(col_name+"\n"+year+"\n"+courses);
}
}
```

5. This will generate following output:

```
XYZ COLLEGE
1987.0
56
```

□□□

Model Question Paper - I
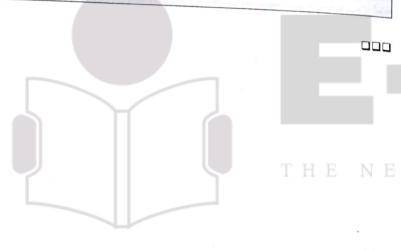
(2 ½ Hours) [Total Marks : 75]

Q. 1 Attempt All (Each of 5 Marks) (15 Marks)

(a) Multiple Choice Questions :

1. POJO means -
   a. Plain Old Java Object ✓
   b. Performance Old Java Object
   c. Performance Optimize Java Object
   d. None of the above

2. Interceptor can change the flow of the application by returning the string.
   a. True ✓
   b. False

3. Which attribute specifies a JSP page that should process any exceptions thrown but not caught in the current page?
   a. The ErrorPage Attribute
   b. The IsErrorPage Attribute ✓
   c. Both A & B
   d. None of the above

4. The ResultSet.next method is used to move to the next row of the ResultSet, making it the current row.
   a. True ✓
   b. False

5. Which class provides stream to read binary data such as image etc. from the request object?
   a. ServltInputStream ✓
   b. ServletOutputStream
   c. Both A & B
   d. None of the above

(b)   Fill in the blanks :

(server, Single threaded, declarations, servlet, elements , request. getParameter(), HttpServletRequest, Multithreaded, SessionContext responce. getParameter())

1.   The JDBC-ODBC bridge is_____.

2.   The Java_____specification defines an application programming interface for communication between the Web server and the application program.

3.   The doGet() method in the example extracts values of the parameter's type and number by using _____.

4.   _____ is a block of java code in JSP that is used define class-wide variables and methods in the generated class file.

5.   _____ class includes the getSession method that is used to get the HttpSession object.

(c)   Answer in 1 – 2 sentences :

1.   What is the file extension of JSON?

2.   What is cookie?

3.   What is purpose of repaint()?

4.   What is a role of HttpServlet?

5.   How to make declaration in SP?

Q. 2   Attempt the following (Any THREE)   (15 Marks)

(a)   Explain different types of text entry components.

(b)   Write a JDBC program to that accepts a table name and displays total number of records in it.

(c)   Write a short note on any two drivers of JDBC

(d)   Write a program in java which creates a list containing at least 3 states of India. On the click of any state, the capital of that state should be displayed in a Text field.

(e)   Explain in brief the Use of JRadioButton.

(f)   Differentiate between AWT and Swing components.

Q. 3   Attempt the following (Any THREE)   (15 Marks)

(a)   Explain the servlet life cycle in detail.

(b)   Discuss the session tracking mechanism of servlet.

(c)   State and explain advantages of JSP.

(d)   Explain the usage of the following JSP tags:

(i) jsp:useBean

(ii) jsp:setProperty.

(e)   State and explain the different JSP elements.

(f)   Write a JSP page which display value of m to the power of n(mn). m and n are accepted from HTML page. Don't write .html file.

Q. 4   Attempt the following (Any THREE)   (15 Marks)

(a)   Write a Student class with three properties. The useBean action declares a JavaBean for use in a JSP. Write Java application to access JavaBeans Properties.

(b)   Discuss the similarities and differences between JSON and XML.

(c)   Explain the steps for creating struts applications.

(d)   Explain struts2 framework in detail.

(e)   What is a Message Driven Bean? State its characteristics.

(f)   Why to use JSON? Explain it in detail.

Q. 5   Attempt the following (Any THREE)   (15 Marks)

(a)   Write a short note on the advantages of JFC.

(b)   Explain the Lifecycle of a Stateless Session Bean.

(c)   List and explain valid JSON data types.

(d)   Explain the request life cycle of struts.

(e)   Write a Swing program containing three text fields. First text field accepts Last Name and Second text field accept First Name. On click of button full name is displayed in third box.

Model Question Paper – II

Q. 1   Attempt All (Each of 5 Marks)   **(15 Marks)**

(a)   Multiple Choice Questions :

1.   Struts supports which of these model components?

   a. JavaBeans

   b. EJB

   c. CORBA

   d. JDO

   e. All Mentioned above

2.   OGNL means

   a. Object-Goal Navigation Language

   b. Object- Graph Navigation Language

   c. Oriented-Graph Navigation Language

   d. None of the above

3.   These two ways are used to create a Frame :

   By creating the object of Frame class (association)

   By extending Frame class (inheritance)

   a. True

   b. False

4.   Which method is used to establish the connection with the specified url in a Driver Manager class?

   a. public static void registerDriver(Driver driver)

   b. public static void deregisterDriver(Driver driver)

   c. public static Connection getConnection(String url)

   d. public static Connection getConnection(String url,StringuserName,String

      password)

5.   The doGet() method in the example extracts values of the parameter's type and number by using-

   a) request.getParameter()

   b) request.setParameter()

   c) responce.getParameter()

   d) responce.getAttribute()

(b)   Fill in the blanks :

(<logic:iterate>java servlet, easier, ServletContext , objects,java applet,ServletConfig, <logic:loop>, difficult, resources)

1.   A JSP is transformed into a_____.

2.   To get the servlet environment information_____ object is used.

3.   _____ logic tags is used for repetitive output generation?

4.   RequestDispatcher object is used to include other _____

5.   XML is much more _____ to parse than JSON.

(c)   Answer in 1 – 2 sentences :

1.   Explain Syntax of JSON?

2.   What is purpose of JPasswordField?

3.   What is CGI?

4.   What is role of ServletConfig interface?

5.   What is disadvantage of JSP architecture?

Q. 2   Attempt the following (Any THREE)   **(15 Marks)**

(a)   Explain with suitable program how to use JcheckBox?

(b)   Discuss the features of JFC.

(c)   Explain various ways of creating ResultSet in JDBC.

(d)   Define JDBC Driver. Describe the different types of JDBC Driver.

(e)   Write a JDBC program to insert five records in customer table with field's custerno,firstname, lastname, address, mobile number and email.

(f)   Differentiate between AWT and Swing components.

Q. 3   Attempt the following (Any THREE)   **(15 Marks)**

(a)   Explain the servlet life cycle in detail.

(b)   Write a short note on HttpSession interface.

(c)   State and explain advantages of JSP.

(d)   Write a servlet program that accepts students name and qualification from an HTML file. If qualification is BSC, then it redirects the user to "GRADUATE.html", if its MSC then it redirects the user to "POSTGRADUATE.html".

(e)   What is JSP? List and explain any three advantages of using JSP over Servlets.

(f)   Write a JSP program to compute square of all numbers from 22 to 12.

Q. 4   Attempt the following (Any THREE)   (15 Marks)

(a)   Why to use JSON? Explain it in detail.

(b)   Explain what do you mean by JSON Schema? Explain it with suitable example.

(c)   Explain the significance of struts.xml and web.xml file in Strut application.

(d)   Explain the role of actions in struts.

(e)   Enlist and explain major struts 2 framework interceptor.

(f)   Write an Account class with three properties. The useBean action declares a JavaBean for use in a JSP. Write Java application to access JavaBeans Properties.

Q. 5   Attempt the following (Any THREE)   (15 Marks)

(a)   How JSP files are executed by web server?

(b)   Write a servlet which allows user to add new records to table C_AREA (RADUIS, AREA). A value for RADIUS is passed through HTML, and corresponding AREA is computed. Also write the code for HTML Document.

(c)   List and explain valid JSON data types.

(d)   Explain the request life cycle of struts.

(e)   What is the role of ServletContext and HttpServletRequest? State some important methods of these classes.

□□□