Examination	: First Sessional	Seat No.	:
Date	: 12/01/2018	Day	: Friday
Time	: 12:00 to 1:15 PM	Max. Marks	: 36

INSTRUCTIONS:
1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1 **Do as directed.** [12]
   (a) What are common tasks performed by Servlet Container? [2]
   (b) Explain how to read http header information in servlet? [2]
   (c) What is the purpose of using init() method of a servlet? [2]
   (d) How to achieve batch Processing in jdbc and what are its benefits? [2]
   (e) Differentiate following jdbc methods: execute(), executeQuery() and executeUpdate()? [2]
   (f) What is "phantom read" in JDBC? Which isolation level prevents phantom read? [2]

Q.2 Attempt *Any Two* from the following questions. [12]
   (a) Write a Java application that inserts numerical data into a table. The application [6]
      (i) retrieves the input values from the command line and (ii) uses a preparedStatement
      for insert operations. The application must restore the initial state of the
      table as soon as a negative number appears in the input.
   (b) 1. What is the use of ResultSet interface in jdbc, explain updatable and scrollable [4]
      resultset with an appropriate example.
      2. Explain: Save Point in transaction management in jdbc . [2]
   (c) 1. Explain: JDBC Connection Pooling using JDBC DataSource and JNDI in Glassfish [3]
      Application Server.
      2. Write an application that connects to a database through JDBC, and print table
      details like total number of columns, size, type and name of the each column. [3]

Q.3 Attempt following questions. [12]
   (a) Draw and discuss servlet life cycle. What is use of .war file? Which components .war [5]
      file contains?
   (b) A company manufactures different types of Televisions. The company wants to
      automate the process of viewing the specifications (screen size, resolution, Wi-Fi
      support, Aspect ratio) of Television using HTML and servlet pages.
      You have to implement the following functionalities for this application:
      1. Servlet page for login, and logout with session management. [3]
      2. Servlet page which takes Television id and Television name as HTTP request [4]
      GET parameters and sends the specifications and price of the Television to the
      client.

OR

Q.3 Attempt following questions. [12]
   (a) Explain with Figure: How do servlets (through servlet container) handle multiple [5]
      simultaneous requests?
   (b) What is a session in servlet? How to create a session in servlet? How to update an [7]
      attribute in session in servlet? Explain with code: How the session can be managed
      between different client requests?