

Paper Code: 3613

Paper Title: Advanced Java

Time: 2:30 Hours

Marks: 70

- Q1 Answer any FIVE from the following: [10]
- What is Swing? Write import directive for swing-based programming.
 - Give your comment on the statement: "All containers are component, but all components are not container."
 - What is purpose of addItem() and getSelectedItem() in JComboBox?
 - Which parameters are passed in service() method of GenericServlet?
 - What is purpose of init() and destroy() methods in the servlet?
 - What do you understand by the term ResultSet in JDBC programming?
 - Which methods are used to send and receive a packet in UDP based programming?
- Q2 Answer any FIVE from the following: [15]
- What is difference between (i) JFrame and JApplet ? (ii) Applet and JApplet ?
 - What do you mean by "Listener"? How a listener is associated with component?
 - Write only init() method of JApplet to scroll an image using JScrollPane.
 - State the meanings of "JDBC driver" and "JDBC-ODBC bridge".
 - How a Service() method of Servlet is called?
 - Write a code segment (not a complete program) to receive a datagram packet, extract a string in variable user_name from it, and send acknowledgement message "Hello, "+user_name to the port from where the packet was received.
 - Write code to implement remote class using the remote interface, and bind it to RMI registry.
- Q3 Answer any FIVE from the following: [25]
- State the meaning of Component, light-weight Container, and heavy-weight Container. Give one example of each.
 - Explain event handling in JButton.
 - Explain constructor, events, and methods of JList class.
 - Discuss the steps of execution of Servlet.

M.C.A. Semester – 4 Examination, **Nov- 2017**

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- e. Explain the following code:

```

PrintWriter objPW = objResponse.getWriter();
try {
    Enumeration e=objRequest.getParameterNames();
    while(e.hasMoreElements())
    {
        String pname=(String)e.nextElement();
        objPW.print(pname + "=");
        String pvalue=objRequest.getParameter(pname);
        objPW.println(pvalue+"</br>");
    }
}
finally {
    objPW.close();
}

```

- f. Write a code to delete a row in table "mySong" of database "myDatabase". Before deleting the row, insert that row in table "myHistory". Assume the following fields in both the tables: song_no, song_words, movie_name, male_singer, female_singer.
- g. Write a TCP based program "myServer.java" that receives one string from "clientA", prints it, and sends it to "clientB". You have to write only one program on server-side.

Q4 Answer any TWO from the following:

[20]

- a. Discuss the following swing components: JLabel, JTextField, and JCheckBox. Also write one program illustrating use of JLabel, JTextBox, as well as JCheckBox.
- b. Explain with coding :
- Inserting row in database table using PreparedStatement.
 - Display selected rows based on "select ... where ..." using Statement.
 - Update only one row in the table using PreparedStatement.

Note:

- Write necessary portion of code, no need to write complete program
 - Assume any suitable table of your choice.
- c. Compare UDP based socket programming and TCP based socket programming. Explain the use of following classes: DatagramSocket, DatagramPacket, ServerSocket, Socket