DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH – SEMESTER – V, IT
SUBJECT: [IT 510] Core Java Technology

Examination	: **Third Sessional**	**Seat No.**	:
Date	: **11/10/2018**	**Day**	: **Thursday**
Time	: **11:45 to 01:00 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.
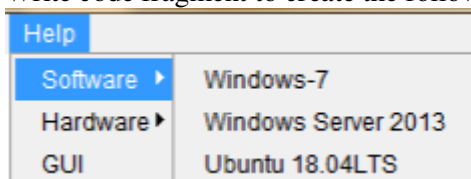
Q.1 **Do as directed**. **[12]**
   (a) TextField (GUI component) can trigger two events. For both the events, write names of listener interface, event object, and event handler. [2]
   (b) List (GUI component) can trigger two events. For both the events, write names of listener interface, event object, and event handler. [2]
   (c) If we use null layout for a container, then (i) How can we specify the size of the component? (ii) How can we add the component in the container? [2]
   (d) Write a java code snippet to read an input from console using BufferedReader class. [2]
   (e) Explain the following: [4]
        1. StreamTokenizer
        2. DataInputStream
        3. BindException
        4. MalformedURLException

Q.2 Attempt *Any Two* from the following questions. **[12]**
   (a) Write a TCP client-server Java networking program. A client requests the server for area of circle. E.g., if a client sends radius 10 to the server, the server program responds back with the area of circle as 314, using equation ($3.14 * r^2$). Use Java Sockets for communication between clients and server. [6]
   (b) Write a program that checks whether the file is directory or not. If (i) yes, display all the files and directories in it, and (ii) If not, copy the content of the file to another file. [6]
   (c) Answer the following: [6]
        1. Explain the following terms related to java networking: URLConnection, DatagramPacket, and InetAddress.
        2. What is the necessity of two types of streams – byte streams and character streams? Enlist two sub-classes of each Stream.

Q.3 Attempt *ALL* from the following questions. **[12]**
   (a) Write a Java Applet that allows the user to draw free-hand drawing (by dragging left-mouse button) and free-hand erasing (by dragging right-mouse button) functionalities. The free-hand drawing should be of line size 6 pixels. [6]

   (b) Write code fragment to create the following menu in a GUI application. [3]

   (c) What security restrictions are applied on Applet? Discuss them with possible reasons/justification. [3]

OR

Q.3 Attempt *ALL* from the following questions. **[12]**
   (a) Create a GUI based application having the following layout. The application allows the user to [5]

enter name in the TextField, gender using Checkbox, semester using Choice, and Interests using List (allows multiple selection). On clicking the OK button, the entered information should be displayed in the TextArea as per the shown format.

Name

Gender ⭘ Male ⭘ Female

Semester 1 ▽

Interests
> Programming
> Hardware
> Web Technologies
> Software Design
> Database and Analytics

[OK]

Name :
Gender :
Semester:
Interests:

(b) Using GridBagLayout, create a GUI Application having the following layout: [5]

Button #1 Button #2
           Button #3
           Button #4

Button #5   Button #6   Button #7

Button #8   Button #9

(c) Write constructor of the class to create a Dialog box. Explain its parameters. Also write about how can we show the dialog box? [2]