Examination	: **BLOCK(Repeater)**	**Seat No.**	:
Date	: **09/11/2017**	**Day**	:
Time	: **3:00 to 4.15 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) Explain following terms related to java.   [2]
         1. Bind Exception
         2. InetAddress
   (b) Explain an applet <applet> tag.   [2]
   (c) Discuss about DataInputStream and DataOutputStream classes.   [2]
   (d) Differentiate String and StringBuffer class.   [2]
   (e) Explain situations when we get ,   [2]
         1. NullPointerException and
         2. ArrayIndexOutofBoundException.
   (f) If we write, Account [] as=new Account[10];   [2]
         How many times constructor will be called? Give reason for your answer.

Q.2 Attempt *Any Two* from the following questions.   **[12]**
   (a) Differeitiate between abstract class and interface.Define an interface Shape with a   [6]
        method area () as its only member. Define the class Circle, Rectangle and Triangle that
        implements the Shape interface. The area () method should have prototype behavior.
   (b) Write code fragments to perform the following operations on a given sting   [6]
        str ="Welcome to dduniversity".
                 a. Find the length of string
                 b. Replace the character 'd' by 'n'
                 c. Convert all characters in uppercase
        Extract and print "dharmsinh" from given string.
   (c) Write a TCP client server program. Client should able to send length to server and   [6]
        server should be able to calculate area of square and respond to client.

Q.3 Attempt *ALL* from the following questions.   **[12]**
   (a) 1. Explain Layout Managers.   [2]
        2. Write an applet that tracks the position of the mouse when it is dragged or moved. At   [4]
        the current mouse position, it displays message (x, y) showing current position of the
        mouse. The message should disappear as soon as the user releases the mouse.
   (b) What is the difference between byte stream and character stream? Write a java program   [6]
        to copy subject.txt to destination.txt.
                                            OR
Q.3 Attempt *ALL* from the following questions.   **[12]**
   (a) Write a complete program to create a frame for providing GUI to implement a stack   [6]
        for storing integer numbers. There are two buttons called PUSH & POP and a
        text field. Clicking of button PUSH, pushes the number entered in the text field onto
        the stack. The click of button POP pops an element from the stack and displays that in
        the text field. [Hint: java.util.Stack]
   (b) Write java TCP chat application program where client and server can chat with each   [6]
        other.