2.

```java
Class DisplayMessage extends thread {
        private  String message;
        private int interval;

    public  DisplayMessage (String message, int interval){
        this. message = message;
        this. interval = interval;
    }

    public void run() {
        while (true) {
            try {
                System.out.println (message);
                Thread.Sleep (interval * 1000);
            } catch (InterruptedException e) {
                e.printStackTrace();
            }
        }
    }
}

public Class Main {
        public static void main (String [] args) {
            DisplayMessage thread1 = new DisplayMess
                        age ("BMS college of
                        Engineering.", 10);
        DisplayMessage thread2 = new DisplayMessage (
                    "CSE", 2);
thread1. Start();
thread2. Start();
    }
}
```

19/2/24

o/p → BMS college of Engineering
    CSE
    CSE
    CSE

Creating label, button Text Field in Frame using AWT

```java
import java.awt.*;
import java.awt.event.*;
public class AWTExample extends WindowAdapter {
    Frame f;
    AWTExample () {
        f = new Frame ();
        f.addWindowListener (this);
        Label l = new Label ("Employee id: ");
        Button b = new Button ("submit");
        TextField t = new TextField ();
        l.setBounds (20, 80, 80, 30);
        t.setBounds (20, 100, 80, 30);
        b.setBounds (100, 100, 80, 30);
        f.add (b);
        f.add (l);
        f.add (t);
        f.setSize (400, 300);
        f.setTitle ("Employee info");
        f.setLayout (null);
        f.setVisible (true);
    }

    public void windowClosing (WindowEvent e) {
        System.exit (0);
    }

    public static void main (String [] args) {
        AWTExample awt obj = new AWTExample ();
    }
}
```
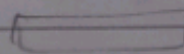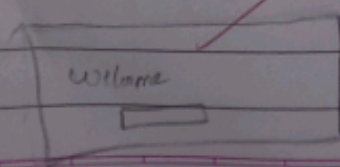
O/P →

Employee Info

2. Create a button and add a action listener for Mouse click.

```
Import java.awt.*;
import java.awt.event.*;
public class EventHandling extends WindowAdapter
    implements ActionListener {
    Frame f;
    TextField tf;
    EventHandling () {
      f = new Frame ();
      f.addWindowListener (this);
      tf = new TextField ();
      tf.setBounds (60, 50, 170, 20);
      Button b = new Button ("click me");
      b.setBound (100, 120, 80, 30);
      b.addActionListener (this);
      f.add (b);
      f.add (tf);
      f.setsize (300, 300);
      f.setLayout (null);
      f.setvisible (true);
    }
    public void actionPerformed (ActionEvent e) {
        tf.setText ("Welcome");
    }
    Public void windowClosing (WindowEvent e) {
        System.exit (0);
    }
    Public Static void main (String args []) {
        new EventHandling ();
    }
}
```

o/p → [Welcome [___]]

programs on IO

```
1   Import java.io*;
        public class Byte ArrayInput {
            public static void main (String [ ]args) throws
        IoException {
        byte [ ] buf = {35, 36, 37, 38};
            Byte Array Input Stream byt = new Byte Array Input Stream
                                                    (buf);

        int k=0;
        While ((k = byt.read ())!=-1) {
            char ch = (char) k;
        System.out.println ("Ascri value of character is
                : " + k + "; Special Character is : "+ ch);
        } } }


2.  Public class File Ex {
        public static void main (String a [ ] throws IOException {
            File InputStream fin = new File InputStream ("Example
                    .txt");

        int content;
        System.out.println (" Remaining byte that can be read "+
                            fin. available ());
        content = fin.read ();
            System.out.println ((char) content + " ");
            Sop (content + " ");
            sop (" Remaining byte than can be read : "+
                    fin. available ());
            System.out.println (" Remaining bytes that can be
                    read : " + fin. available ());

            }
        }
```

3. Import java.io. FileInputStream;
   import java.io IOException;

   public class FileEx2 {
       public static void main (String a[ ]) throws IO
           Exception {
       FileInputStream fin = new FileInputStream ("Example tx
       byte [] bytes = new byte [20];
           Int i;
           Char c;
           i = fin. read (bytes);
           SOP ("Number Of bytes read: "+i);
           for (byte b: bytes){
               C = (char)b;
               SOP (c);
       }
     }
   }

   HOD
   4/3/24