

QUE. Write a program to send and receive SMS ,make use of following GUI.

Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView android:id="@+id/textView"
        android:layout_width="81dp"
        android:layout_height="41dp"
        android:layout_marginEnd="268dp"
        android:layout_marginBottom="576dp"
        android:text="To :"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
    />
    <TextView android:id="@+id/textView2"
        android:layout_width="70dp"
        android:layout_height="43dp"
        android:layout_marginEnd="276dp"
        android:layout_marginBottom="512dp"
        android:text="Sms Text"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
    />
    <EditText android:id="@+id/etPhno"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="40dp"
        android:layout_marginBottom="572dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
    />
    <EditText android:id="@+id/etmsg"
        android:layout_width="193dp"
        android:layout_height="51dp"
        android:layout_marginEnd="56dp"
```

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        android:layout_marginBottom="504dp"
            android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
    />
    tools:ignore="SpeakableTextPresentCheck"
    />
    <Button android:id="@+id/btnSms"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="156dp"
        android:layout_marginBottom="400dp"
        android:text="SEND SMS"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
    />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```
package com.example.pr29;
public class MainActivity extends
    AppCompatActivity {
    SmsReceiver sms = new SmsReceiver();
    EditText et1, et2; Button b1;
    @Override
    protected void onCreate(Bundle
        savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        et1 = findViewById(R.id.etPhno);
        et2 = findViewById(R.id.etmsg);
        b1 = findViewById(R.id.btnSms);
        if (ContextCompat.checkSelfPermission
            (MainActivity.this, Manifest.permission.
                SEND_SMS) != PackageManager.
                PERMISSION_GRANTED) {
            ActivityCompat.requestPermissions(MainAc
                tivity.this, new
                String[]{Manifest.permission.SEND_SMS},
                100);}
        b1.setOnClickListener(new
            View.OnClickListener() {
                public void onClick(View v) {
                    try {
                        String phno = et1.getText().toString();
```

```
String msg = et2.getText().toString();
SmsManager smsManager = SmsManager.
getDefault();
smsManager.sendTextMessage(phno, null,
msg, null, null);
Toast.makeText(MainActivity.this, "Sms sent
successfully",
Toast.LENGTH_LONG).show();
} catch (Exception e) {
Toast.makeText(MainActivity.this, "Sms
failed to send... try again",
Toast.LENGTH_LONG).show();
}}};}protected void onStart() {
super.onStart();IntentFilter filter = new
IntentFilter("android.provider.Telephony.SM
S_RECEIVED");
registerReceiver(sms, filter);}
protected void onStop() {
super.onStop();
unregisterReceiver(sms);}}
```

SmsReceiver.java
package com.example.pr29;

```
import android.content.BroadcastReceiver;
public class SmsReceiver extends
BroadcastReceiver { SmsReceiver(){}
    public void onReceive(Context context,
Intent intent) {
Bundle bundle = intent.getExtras();
if (bundle != null) {
Object[] sms = (Object[]) bundle.get
("pdus");
    for (int i=0; i < sms.length; i++) {
SmsMessage smsMessage = SmsMessage.
createFromPdu((byte[]) sms[i]);
String phone = smsMessage.
getOriginatingAddress();
String message = smsMessage.
getMessageBody().toString();
Toast.makeText(context, phone
,Toast.LENGTH_SHORT).show();
    }
}
}
```

OUTPUT :

