5. Create an application to demonstrate few key features of the Android framework. In particular, the application demonstrates how to send SMS text messages.
   a. How to send SMS text messages.
   b. How to dial using an in-built dialer
   c. How to send email.

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="nmit.mohan.com.app_sms_email_phone.MainActivity">
    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Sending SMS Example"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:textSize="30dp" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Sms"
        android:id="@+id/btnSendSMS"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="48dp" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Email"
        android:id="@+id/btnSendEmail"
        android:layout_below="@+id/btnSendSMS"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="48dp" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Phone"
        android:id="@+id/btnDialPhone"
        android:layout_marginTop="54dp" />
</RelativeLayout>
```

MainActivity.java

```java
package nmit.mohan.com.app_sms_email_phone;
import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.net.Uri;
import android.support.annotation.NonNull;
import android.support.v4.app.ActivityCompat;
import android.support.v4.content.ContextCompat;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    private static final int MY_PERMISSIONS_REQUEST_SEND_SMS = 0;
    Button sendBtn;
    Button btnSendEmail;
    Button btnPhone;
    String phoneNo;
    String message;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        sendBtn = (Button) findViewById(R.id.btnSendSMS);

        btnSendEmail = (Button) findViewById(R.id.btnSendEmail);
        btnPhone = (Button) findViewById(R.id.btnDialPhone);

        sendBtn.setOnClickListener(new View.OnClickListener() {
            public void onClick(View view) {
                sendSMSMessage();
            }
        });

        btnSendEmail.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                sendEmail();
```

```java
        }
    });

    btnPhone.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            PhoneDial();
        }
    });
}

protected void sendEmail() {
    Intent emailIntent = new Intent(Intent.ACTION_SEND);
    emailIntent.setData(Uri.parse("mailto:"));
    emailIntent.setType("text/plain");
    emailIntent.putExtra(Intent.EXTRA_EMAIL, new String[]{"ba.mohan@gmail.com"});
    emailIntent.putExtra(Intent.EXTRA_SUBJECT, "subject Test");
    emailIntent.putExtra(Intent.EXTRA_TEXT, "Message Body Test");
    startActivity(emailIntent);
}

protected void sendSMSMessage() {
    Intent sendIntent = new Intent(Intent.ACTION_VIEW);
    sendIntent.putExtra("sms_body", "default content");
    sendIntent.setType("vnd.android-dir/mms-sms");
    startActivity(sendIntent);
    Toast.makeText(getApplicationContext(), "SMS sent.",
        Toast.LENGTH_LONG).show();
}

protected void PhoneDial() {
    Intent intent = new Intent(Intent.ACTION_DIAL);
    startActivity(intent);  }
}
```