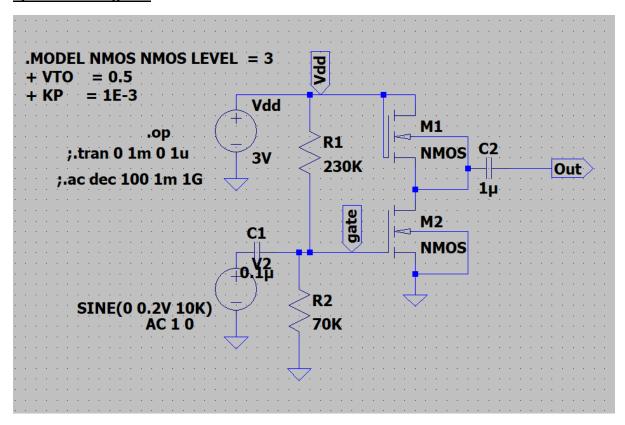
# **Assignment-2(LTSPICE)**

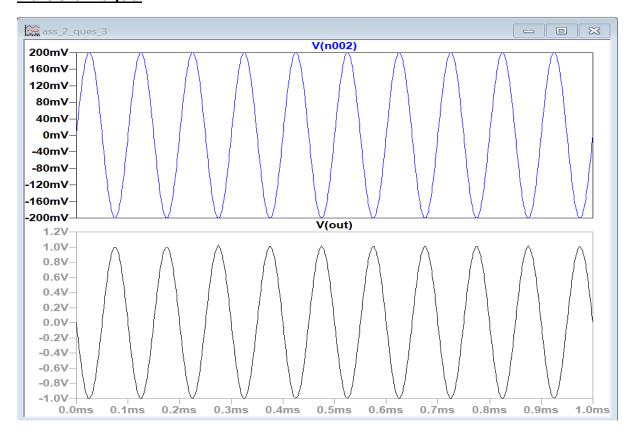
#### **Question-3 Diagram:**



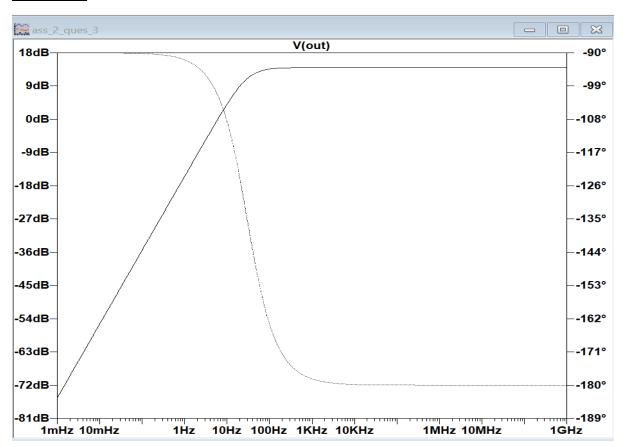
### **DC Operating Point Values:**

```
* C:\Users\singh\Downloads\ass_2_ques_3.asc
       --- Operating Point ---
V(vdd):
                3
                               voltage
V(n001):
                1.5
                               voltage
                0.7
V(gate):
                               voltage
V(n002):
                0
                                voltage
                1.5e-006
V(out):
                                voltage
Id (M2):
                0.001
                                device current
Ig (M2):
                0
                                device_current
Ib (M2):
                -1.51e-012
                               device_current
Is(M2):
                -0.001
                                device_current
                0.001
Id(M1):
                                device_current
Ig(M1):
                0
                                device_current
                -1.51e-012
Ib (M1):
                               device_current
                -0.001
Is(M1):
                                device_current
                -1.5e-018
I(C2):
                                device current
I(C1):
                7e-020
                                device current
I(R2):
                1e-005
                                device current
I(R1):
                1e-005
                               device current
I(V2):
                7e-020
                               device current
I (Vdd):
                -0.00101
                               device current
```

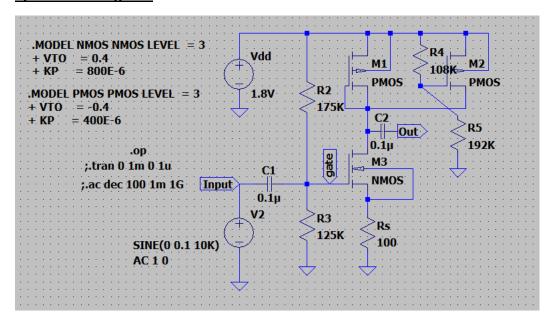
# **Transient Analysis:**



#### **Ac Analysis:**



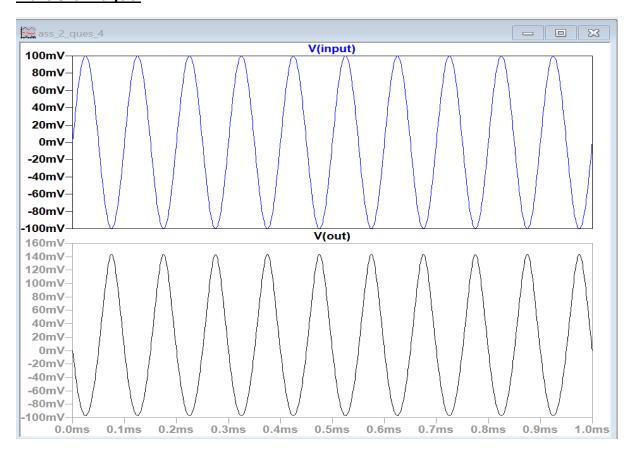
#### **Question-4 Diagram:**



#### **DC Operating Point Values:**

```
* C:\Users\singh\Downloads\ass_2_ques_4.asc
       --- Operating Point ---
V(n001):
                1.8
                                voltage
V(n003):
                1.14802
                                voltage
V(n002):
                1.152
                                voltage
V(gate):
                0.75
                                voltage
V(n004):
                0.1
                                voltage
V(input):
                0
                                voltage
                1.14802e-007
V(out):
                                voltage
Id(M3):
                0.001
                                device_current
                                device_current
Iq(M3):
                -1.05802e-012 device_current
Ib (M3):
                                device_current
Is(M3):
                -0.001
Id(M2):
                0.000492032
                                device_current
Ig (M2):
                -0
                                device current
                6.61985e-013
Ib (M2):
                                device current
Is(M2):
                -0.000492032
                                device current
                0.000507971
Id(M1):
                                device current
Iq (M1):
                -0
                                device current
Ib (M1):
                6.61985e-013
                                device current
                -0.000507971
                                device_current
Is (M1):
I(C2):
                -1.14802e-019 device_current
I(C1):
                7.5e-020
                                device current
                6e-006
                                device current
I(R5):
I(R4):
                6e-006
                                device_current
                6e-006
                                device current
I(R3):
                6e-006
I(R2):
                                device current
                0.001
I(Rs):
                                device current
I(V2):
                7.5e-020
                                device current
I (Vdd):
                -0.001012
                                device current
```

# **Transient Analysis:**



# **AC Analysis:**

