

Audit Course Session 5

AUDIT COURSE ELECTRONIC CIRCUITS 2: SIMULATION BASED STUDY

Kindly update your name and roll no, once this document is shared with you

Time slot to complete your work is **40 MINUTES**

Date: 2/2/2021

Kindly upload your schematic & waveform images here, every 10 minutes, indicating your progress and intention to completion of WORK within time slot allotted

Time slot allotted to you all for the completion of Session 5 is 40 MINUTES

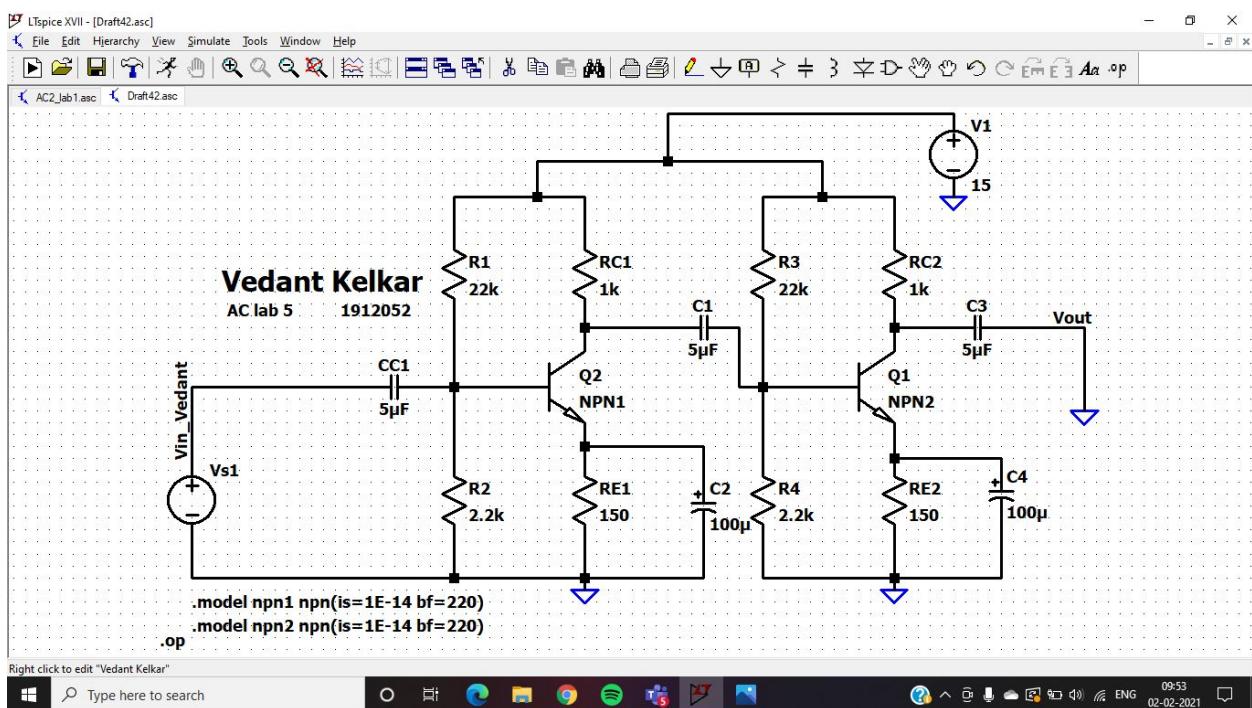
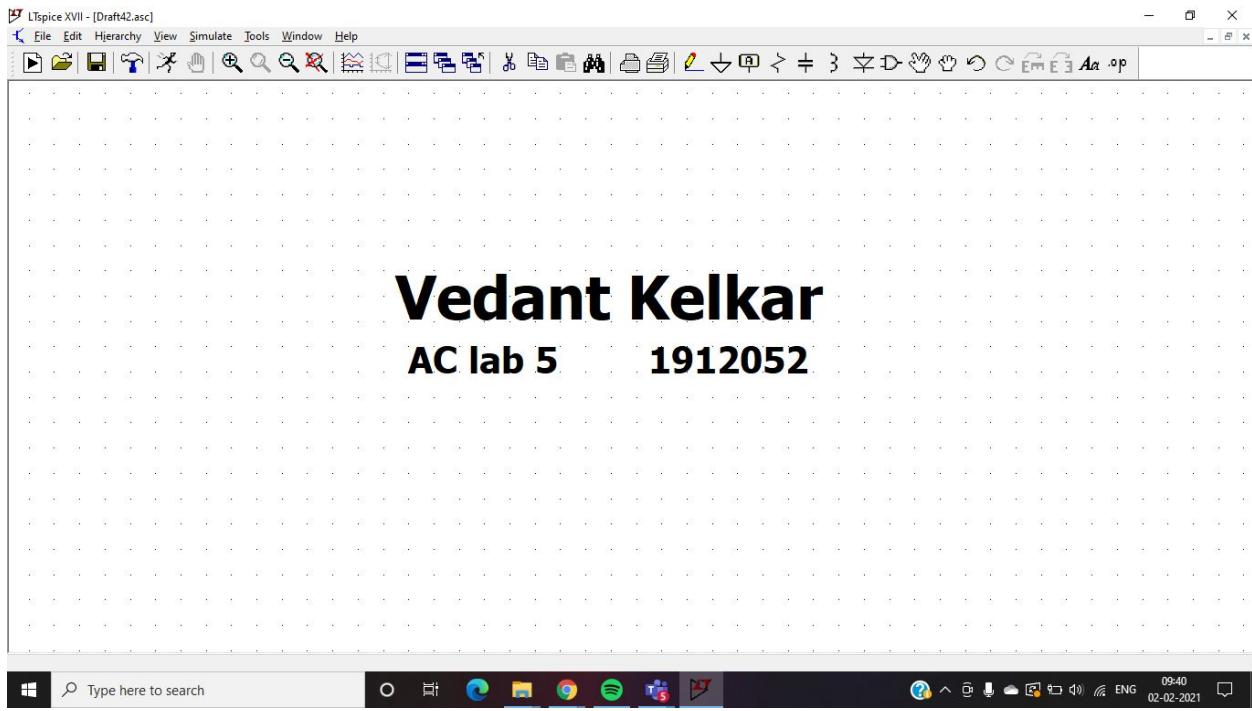
Kindly upload your work (only circuit schematic & waveform in LTSpice) in the shared google doc between this time slot only.

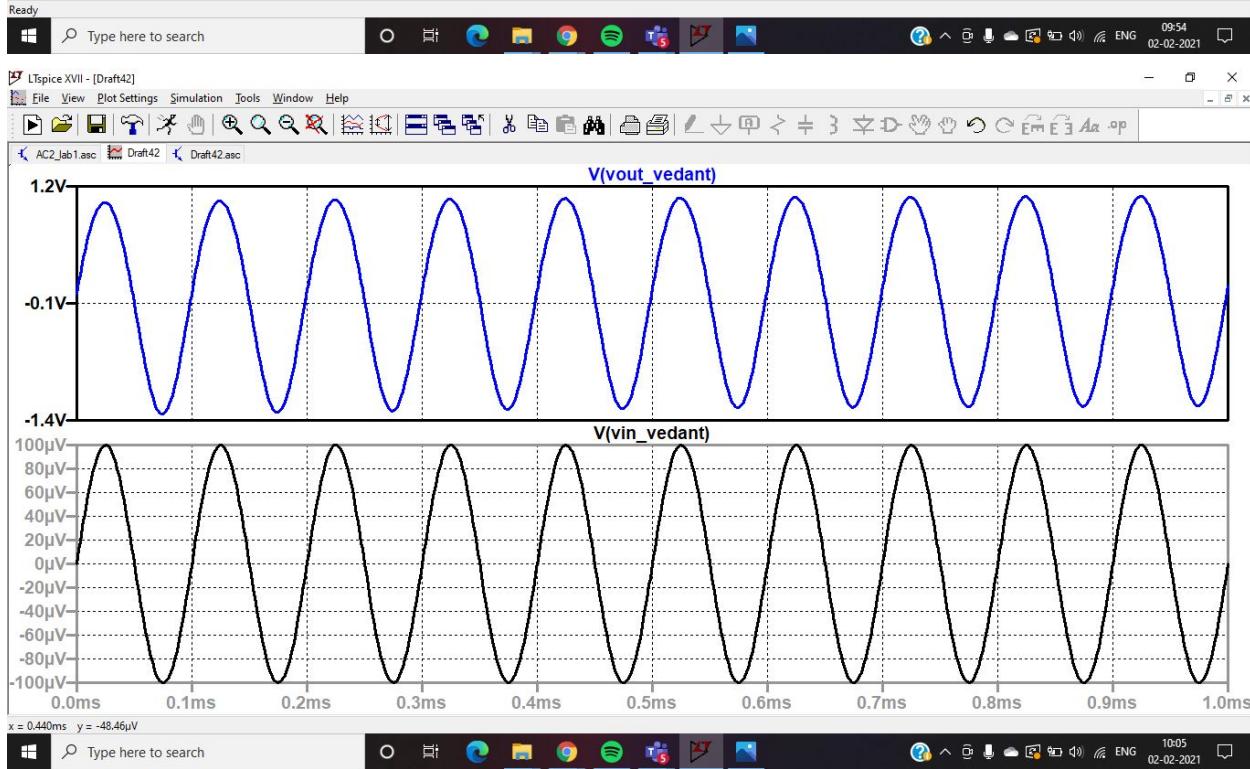
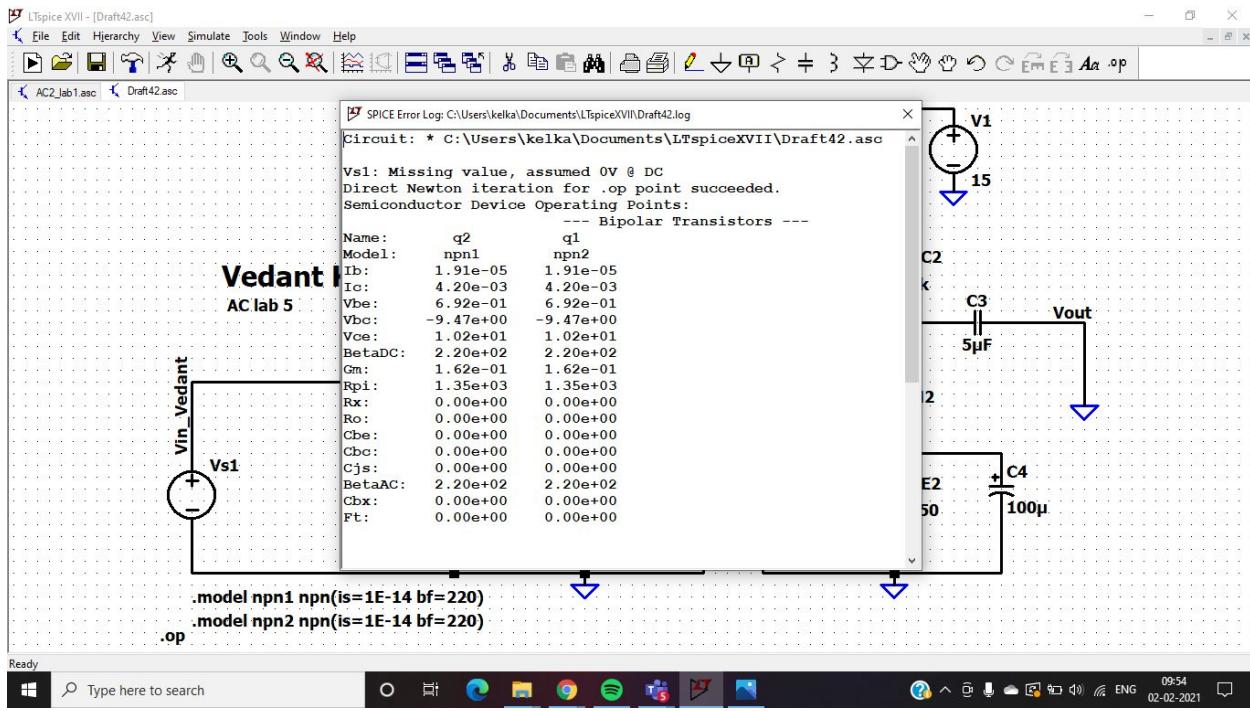
Follow these instruction strictly:

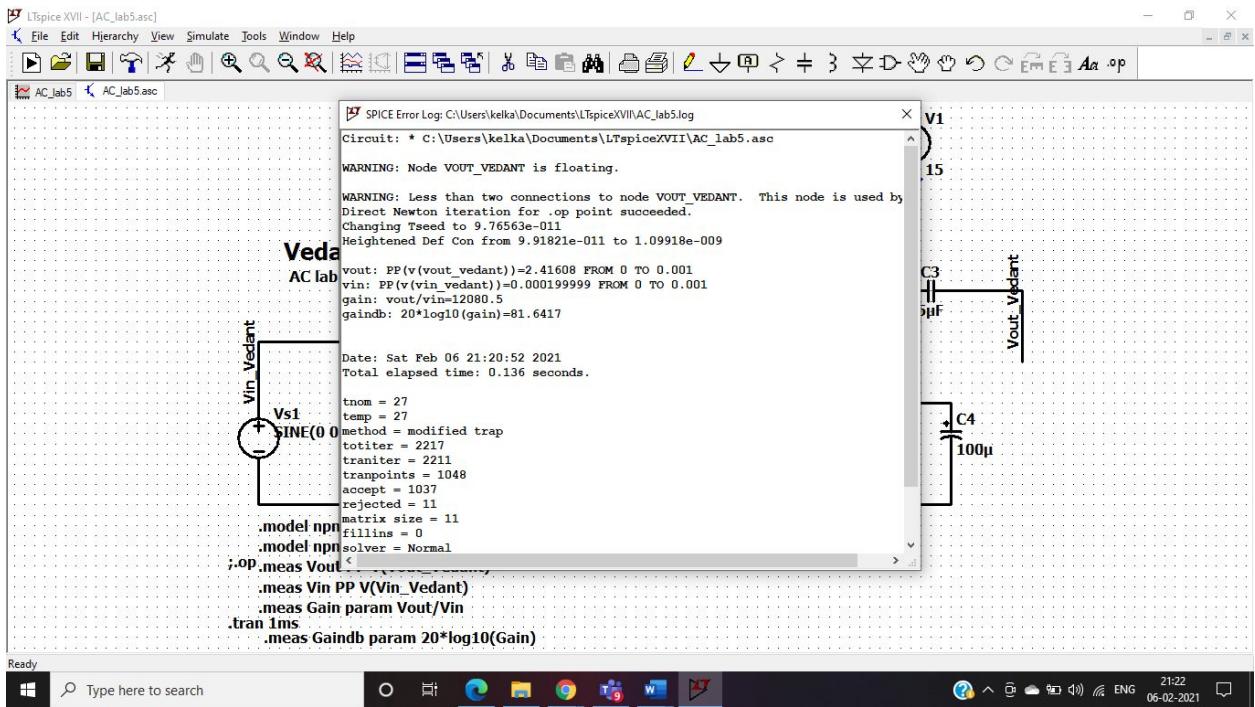
- 1, Start sharp ON TIME, by posting your name and roll no and **screenshot of your LT spice work screen (time and date MUST BE VISIBLE)**
2. Upload your work every 10 minutes, i.e LT spice work screen
3. This means you will upload LT spice work screen 4 times during this time slot.
4. Point 3 indicates your readiness and presences for completion of Session 5

You are entitled for 10 points per session only if you follow above instruction to the details

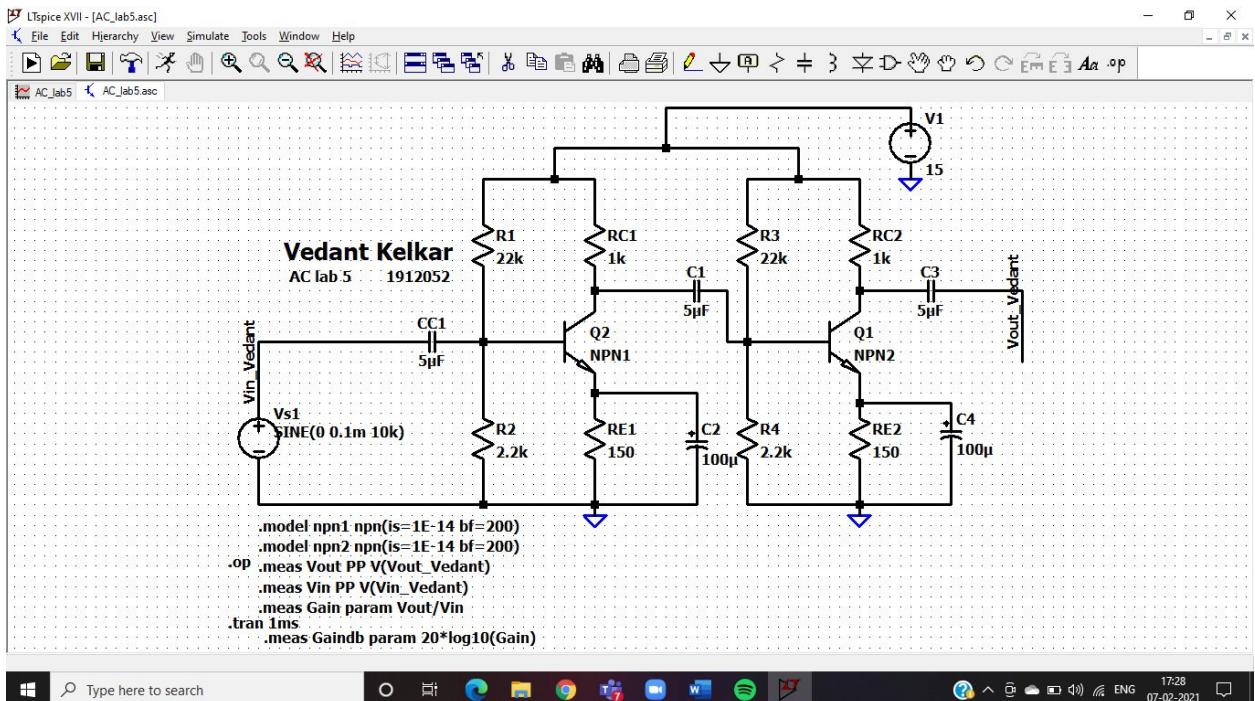
STUDENTS WORK AREA STARTS HERE

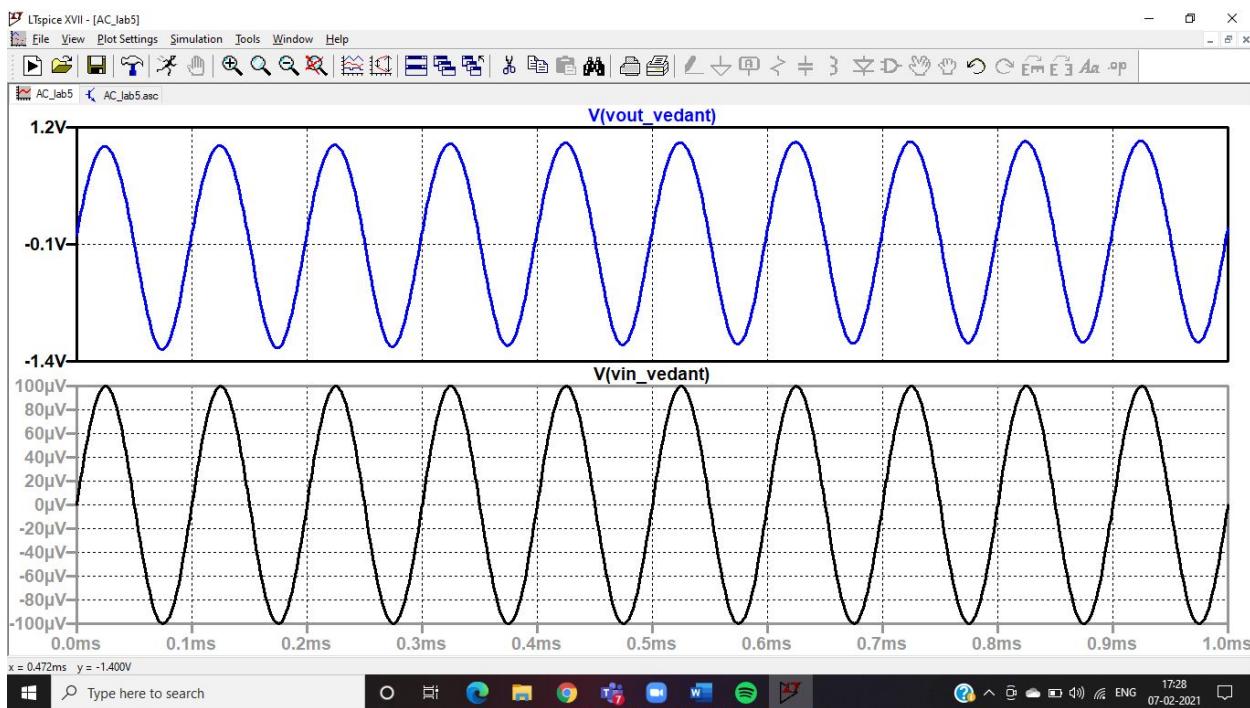
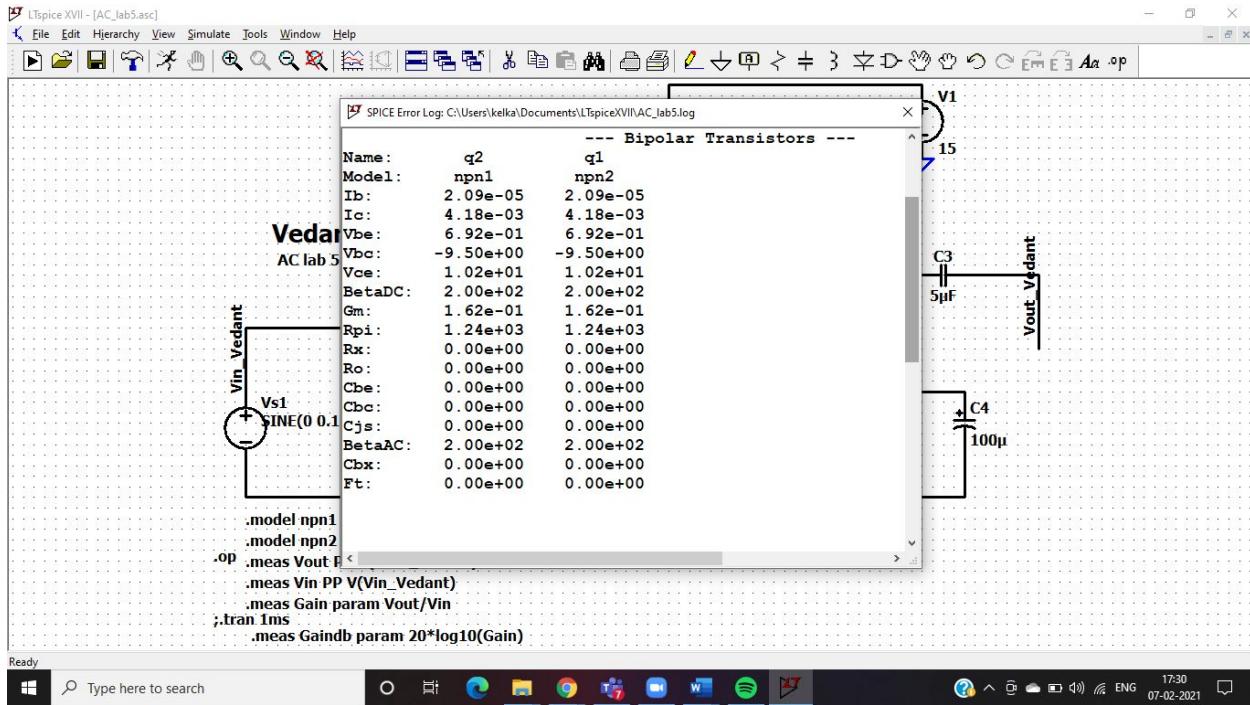






EX1 B=200





Ltspice XVII - [AC_lab5.asc]

File Edit Hierarchy View Simulate Tools Window Help

AC_lab5 AC_lab5.ac

Vedant

AC lab

Date: Sun Feb 07 17:28:18 2021
Total elapsed time: 0.316 seconds.

```

tnom = 27
temp = 27
method = modified trap
totitter = 2106
tranitter = 2100
trampoints = 1040
accept = 1039
rejected = 0
matrix size = 11
fillins = 0
solver = Normal
Matrix Compiler1: 37 opcodes 0.2/[0..1]/0.2
Matrix Compiler2: 903 bytes object code size 0.2/0.2/[0..1]

.model npn1 npn(is=1E-14 bf=200)
.model npn2 npn(is=1E-14 bf=200)
.op .meas Vout
.meas Vin PP V(Vin_Vedant)
.meas Gain param Vout/Vin
.tran 1ms
.meas Gaindb param 20*log10(Gain)

```

Ready

Type here to search

17:29 07-02-2021

Gain	11565.2
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Zin

Ltspice XVII - [AC_lab5.asc]

File Edit Hierarchy View Simulate Tools Window Help

AC_lab5 AC_lab5.ac

Vedant Kelkar
AC lab 5 1912052

Test

Vs1 AC 1 0

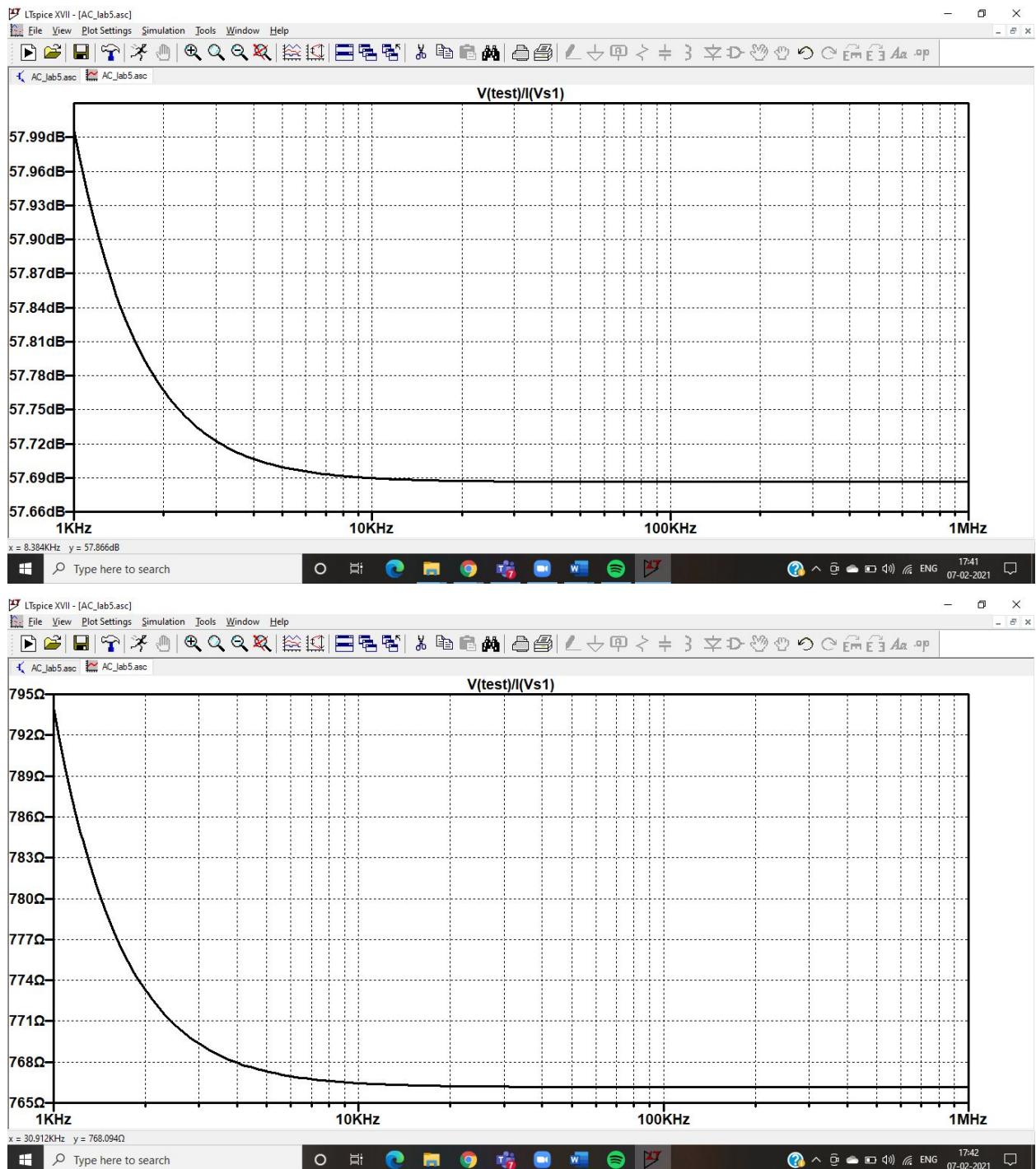
```

.model npn1 npn(is=1E-14 bf=200)
.model npn2 npn(is=1E-14 bf=200)
.op .meas Vout PP V(Vout_Vedant)
.meas Vin PP V(Vin_Vedant)
.meas Gain param Vout/Vin
.tran 1ms
.meas Gaindb param 20*log10(Gain)
.ac dec 100 1V 1M

```

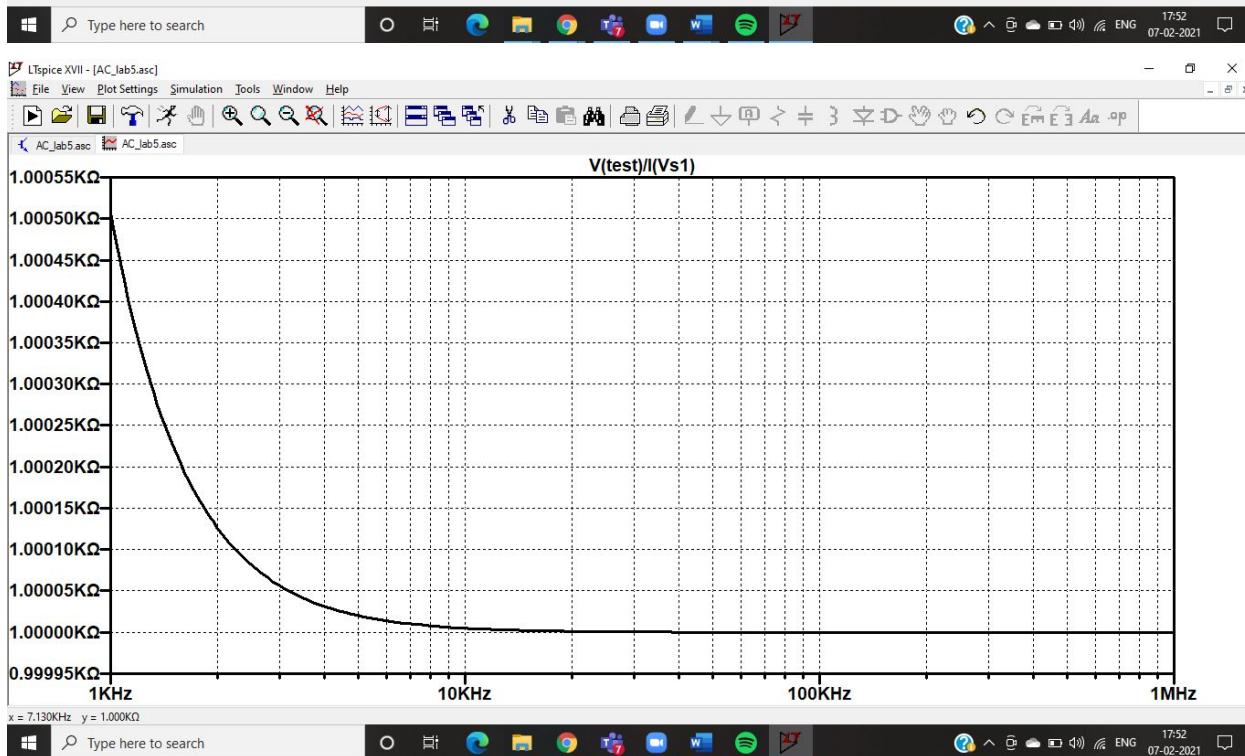
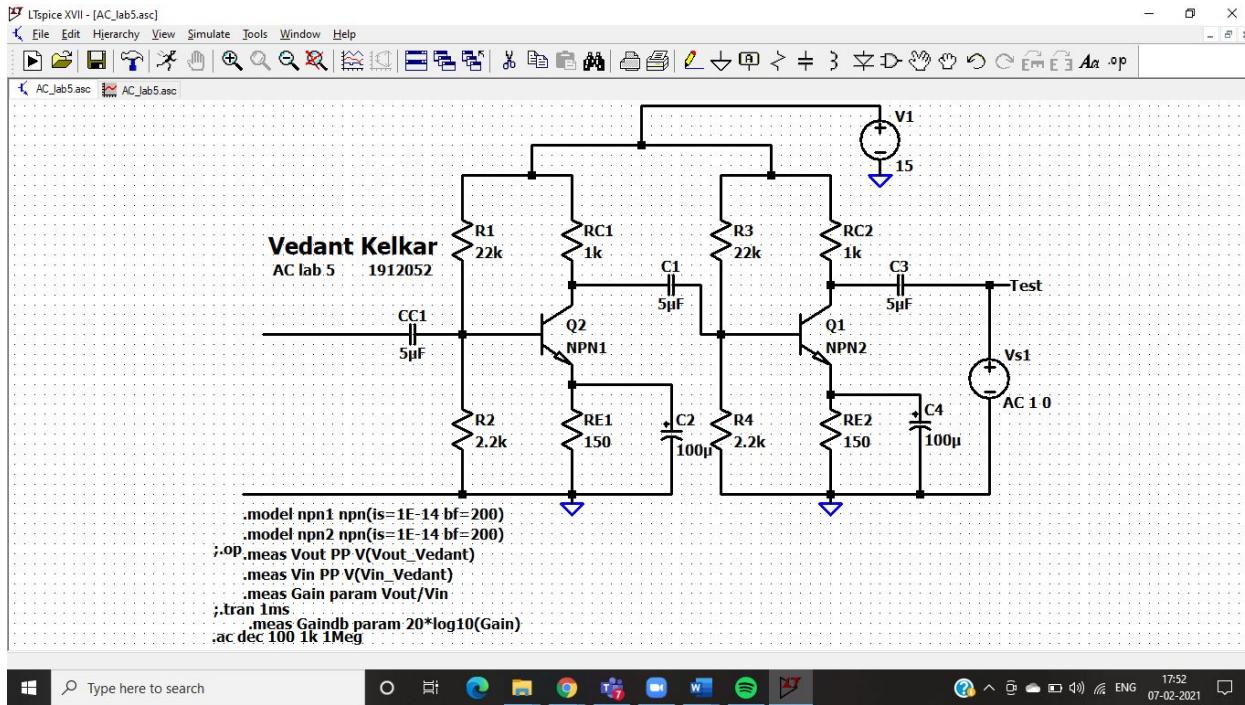
Type here to search

17:41 07-02-2021



Zin 766.19Ohm

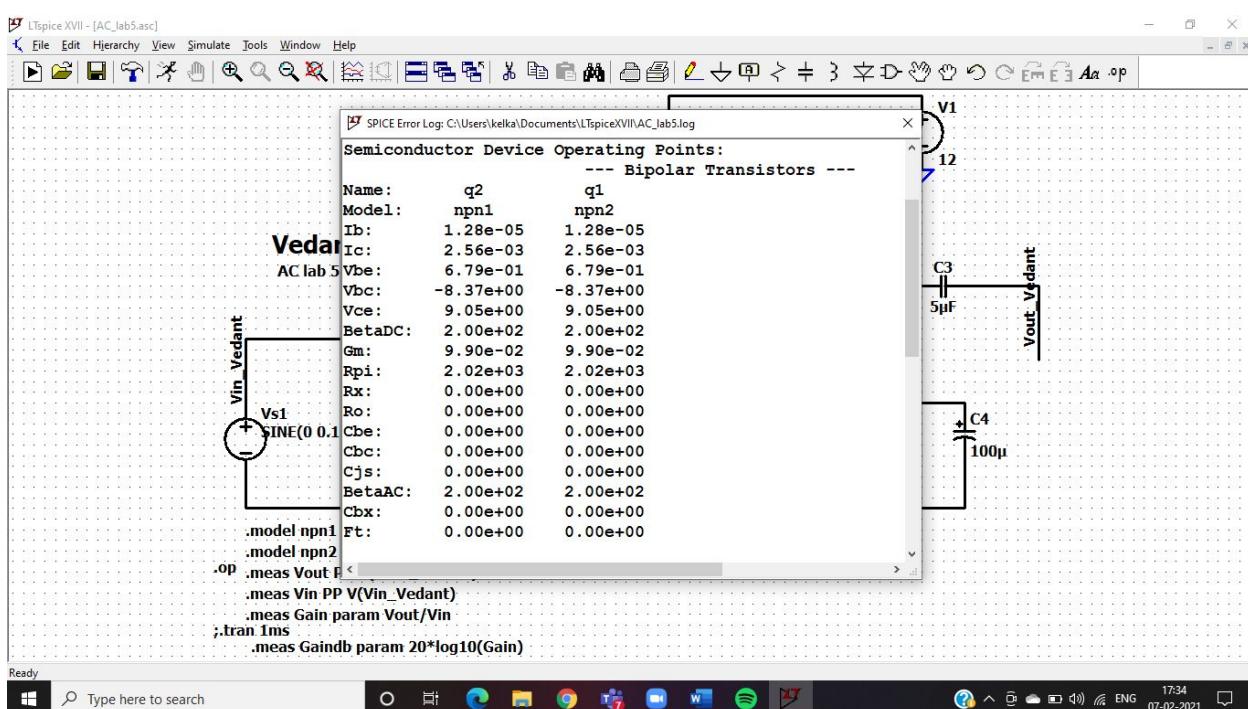
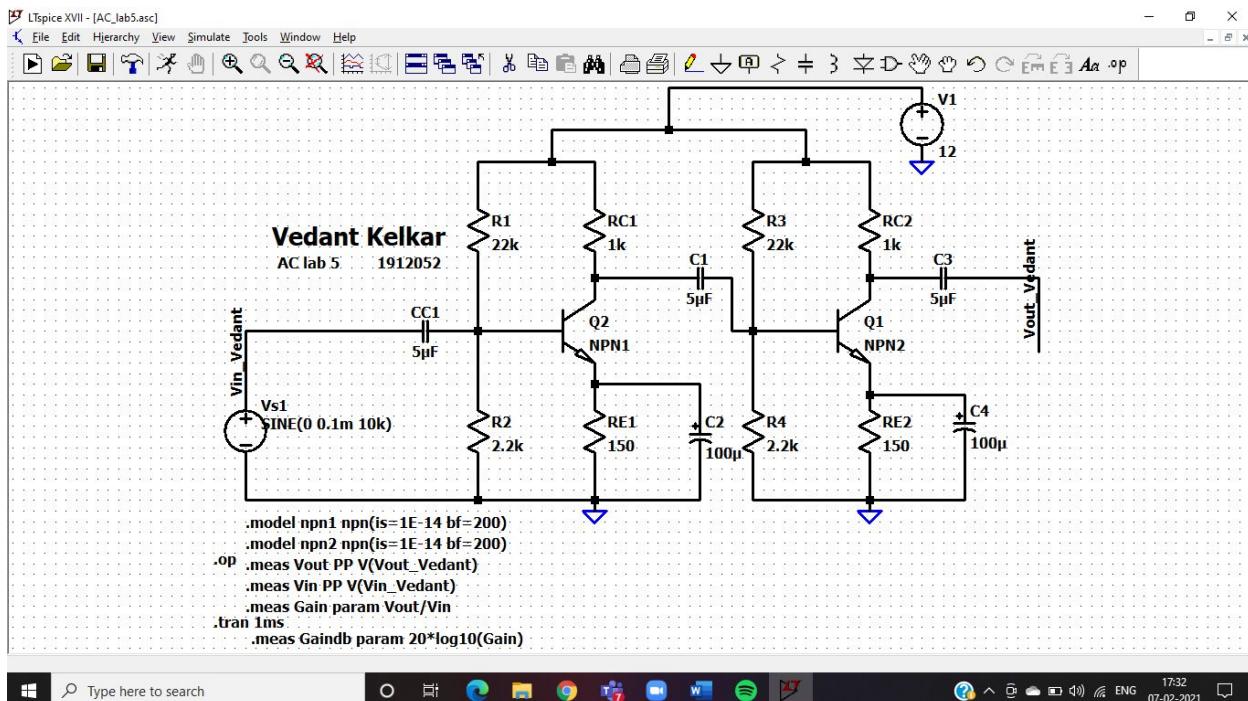
Zout

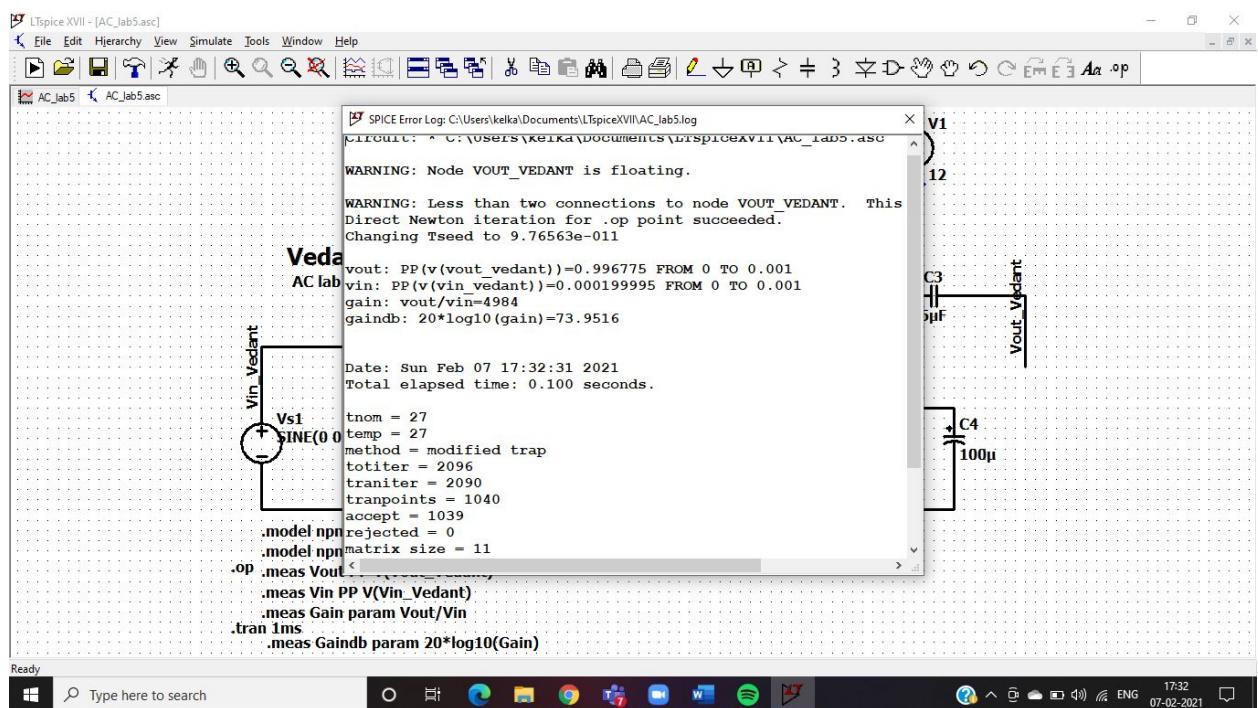
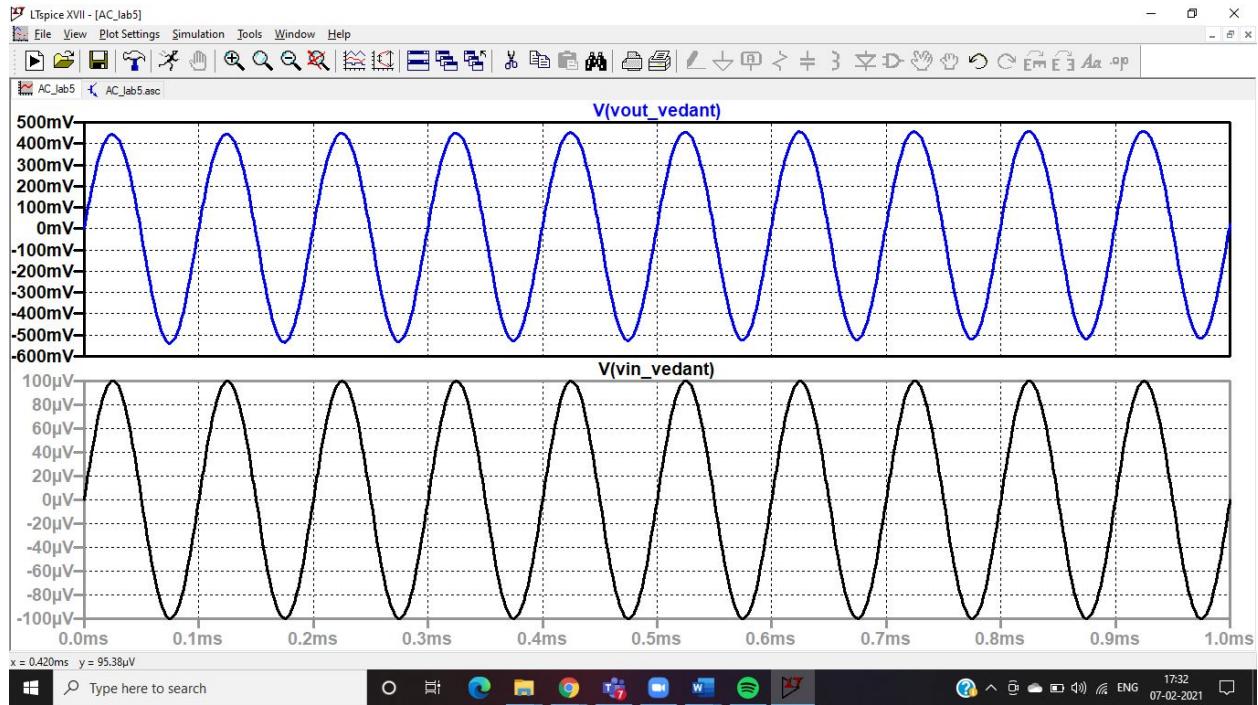


Zout=1.0000005KOhm

Zin	Zout
766.19Ohm	1.0000005KOhm

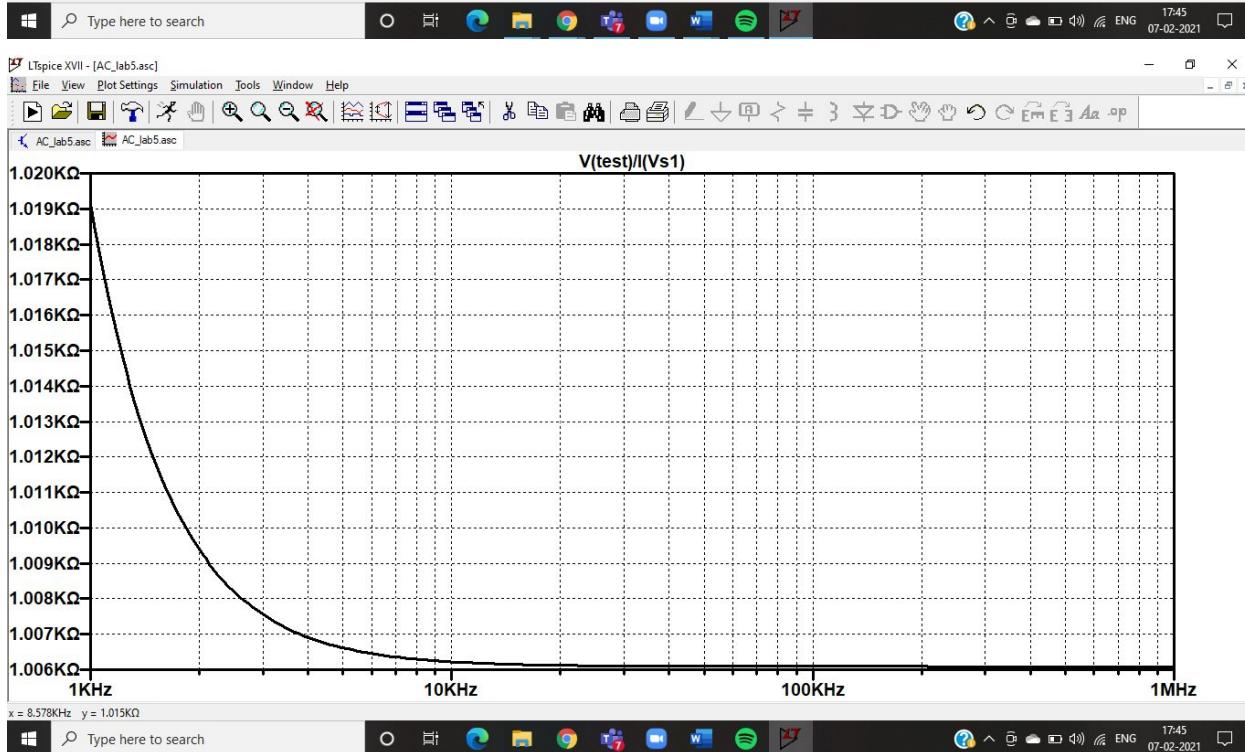
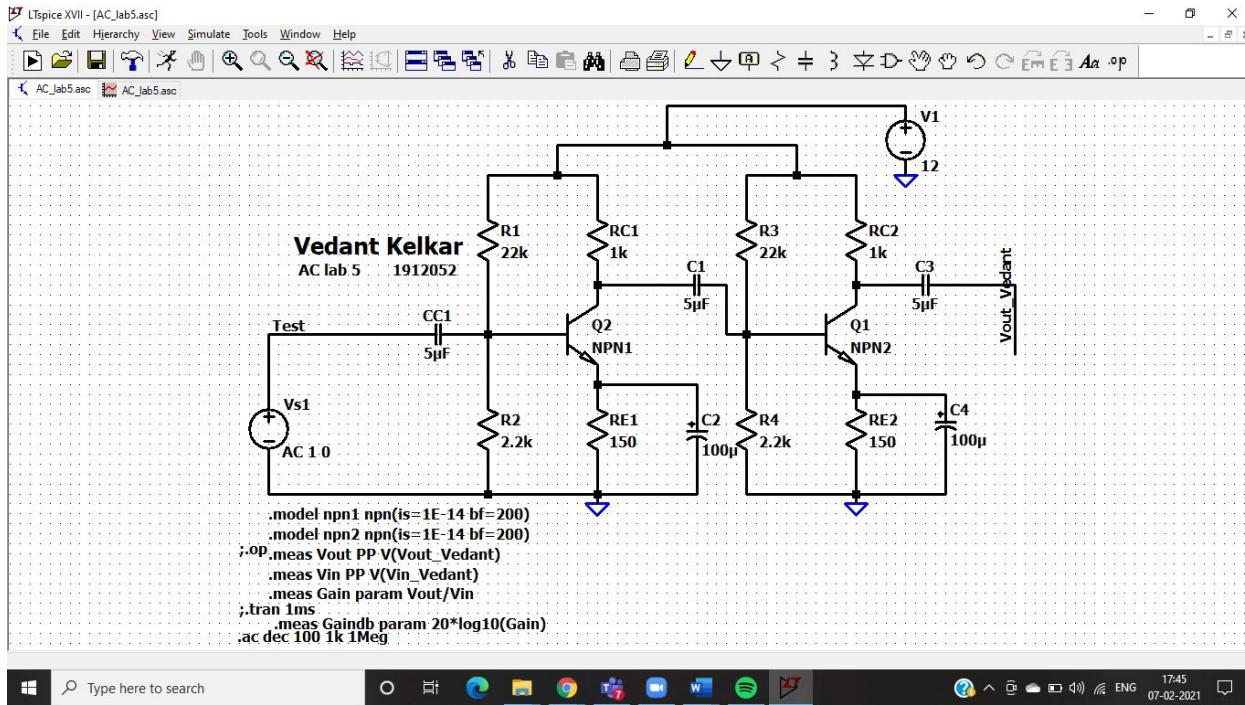
EX2 VCC=12V





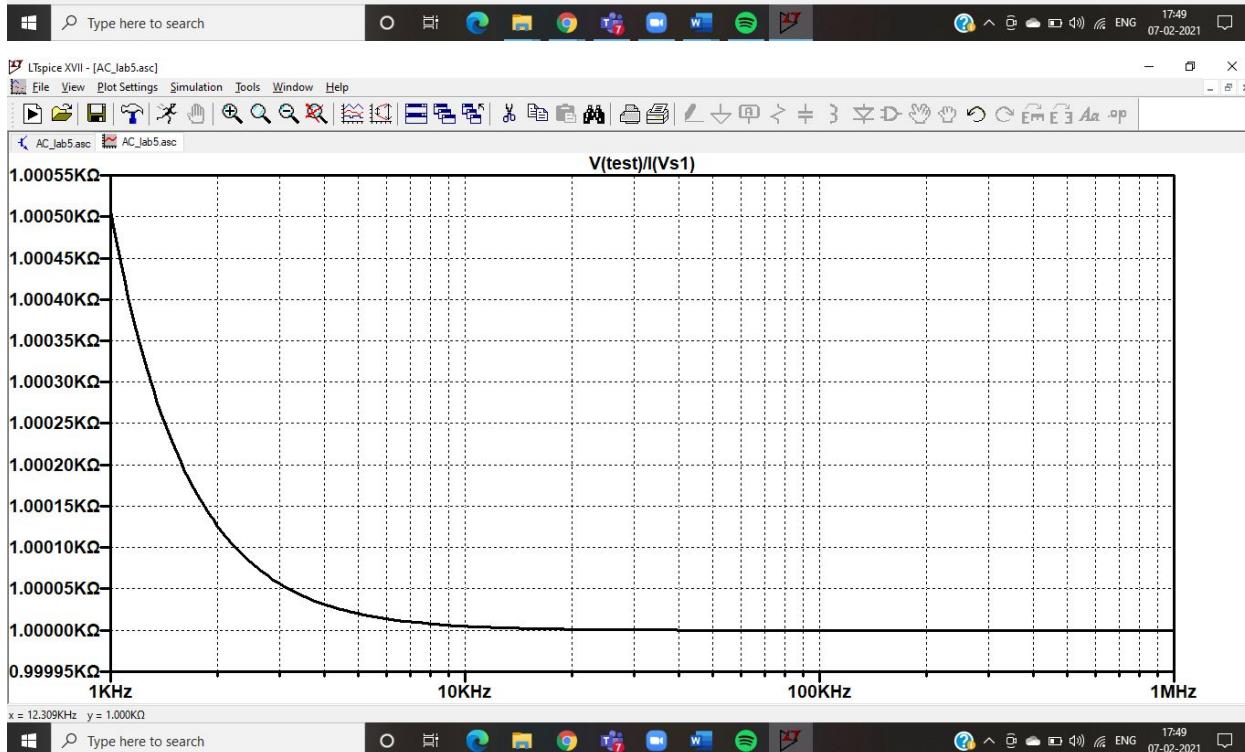
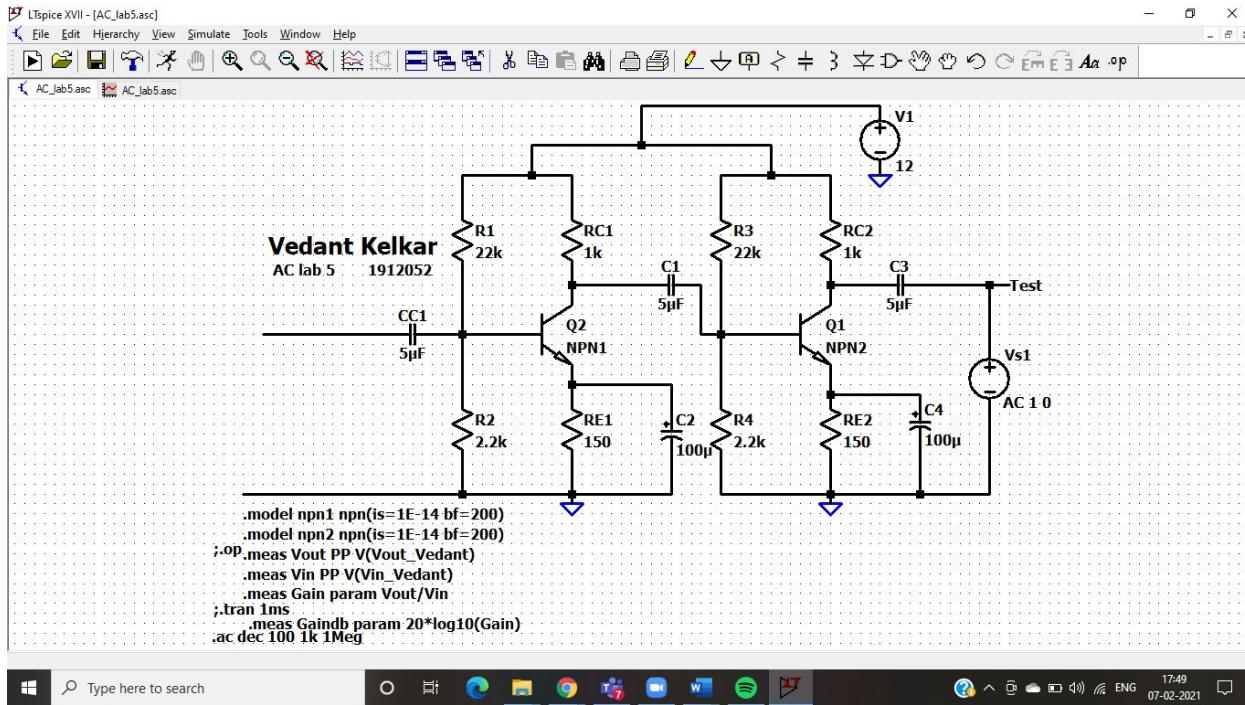
Gain	4984
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Zin



Zin=1.0061046KOhm

Zout



1.000005KOhm

Zin	Zout
1.0061046KOhm	1.0000005KOhm

Suggestions: Kindly add simulation results in the form of table. Also Zin and Zout simulations are pending

AC LAB 5 is pending