

Birzeit University
Circuit and Electronics Lab EENE 2103
General Practical Questions Worksheet

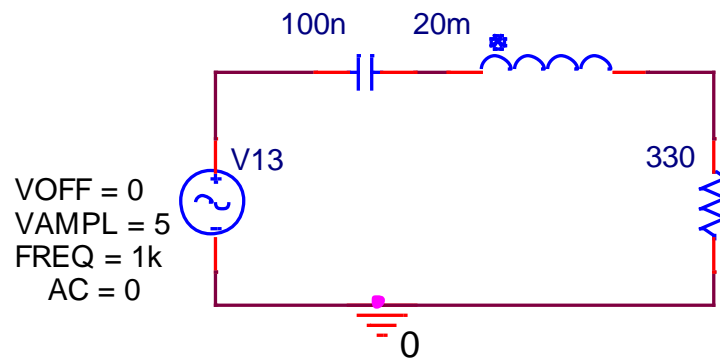
Student Name:

Student Number:

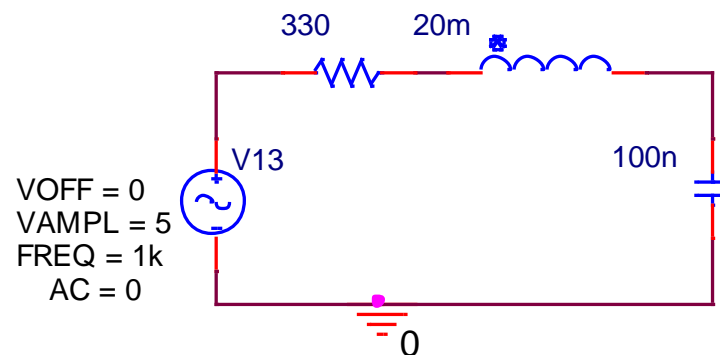
Question 1: Fill the blanks with the most suitable answer:

1. How can you measure the value of a capacitor practically without a measuring device?

2. How many oscilloscope probes are needed to measure the phase shift between input voltage and current in this circuit? Why?



What about this connection?



3. To measure the input impedance of this circuit, we can use the oscilloscope to measure the peak to peak voltage and current then divide them. Do you agree? Why and why not?

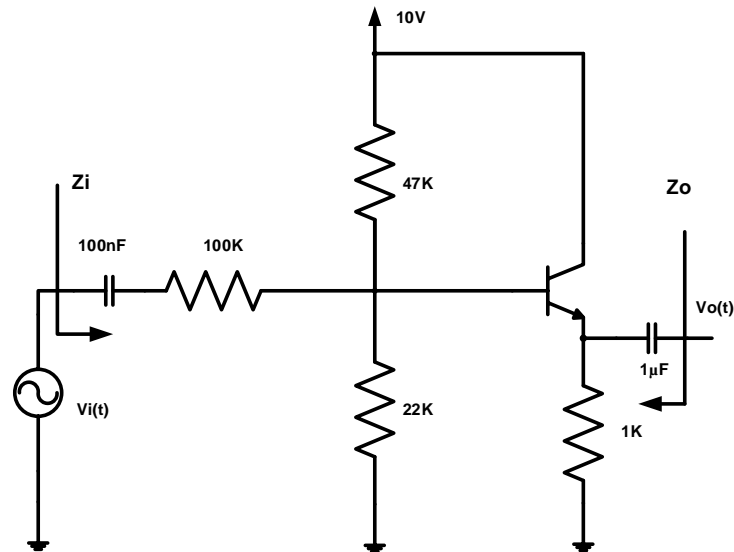
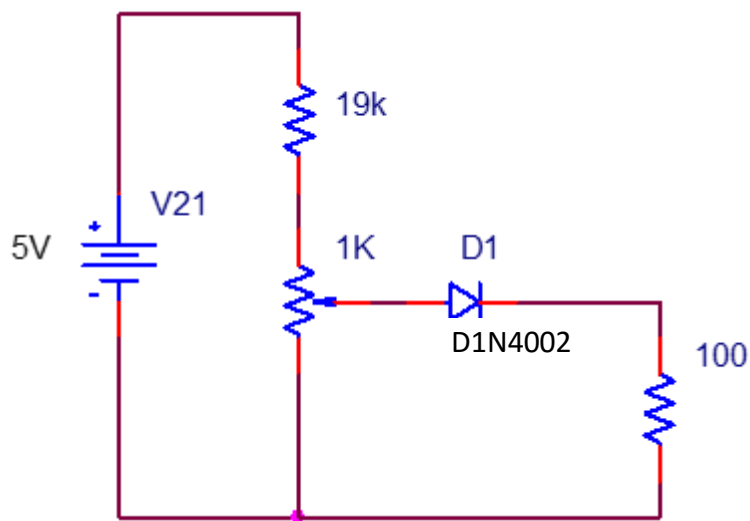


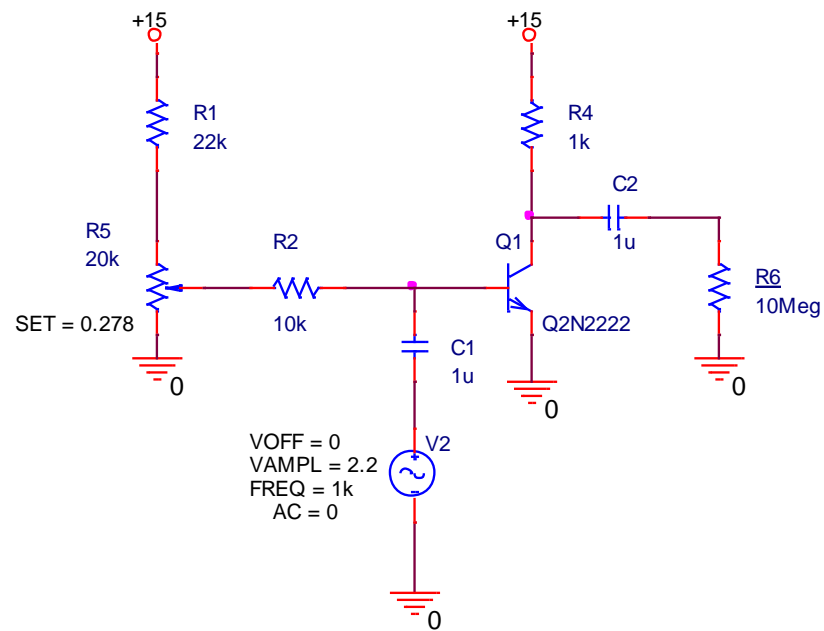
Fig.(7-2)

4. This circuit can be used to measure and draw the V-I characteristic of the diode? Explain:

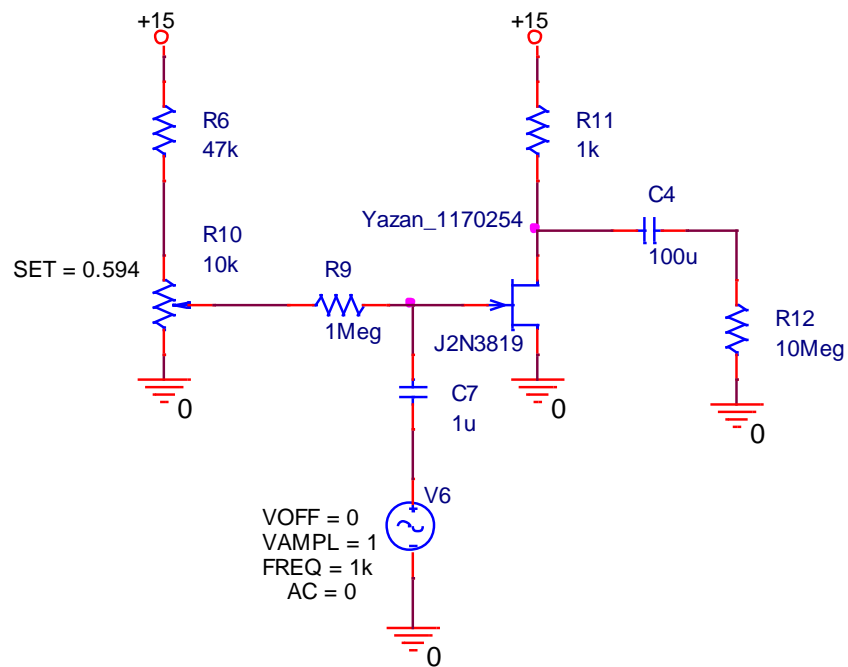


5. Find the problem in these connections:

Common Emitter Amplifier:

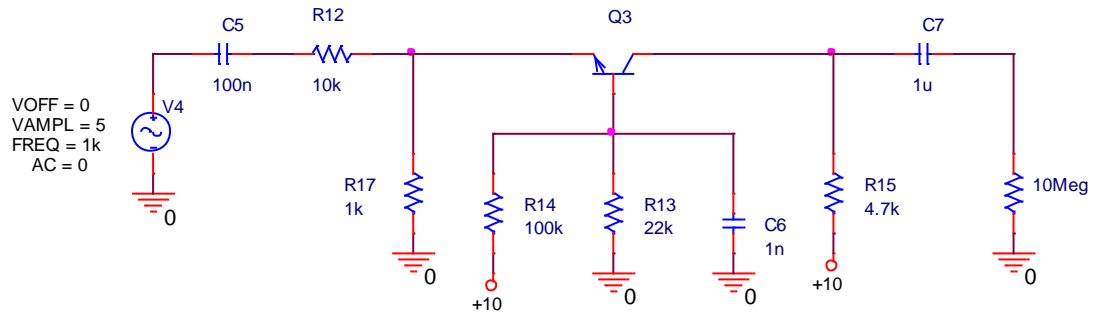


Common Source Amplifier:



6. How can I make sure that the BJT I am working with isn't damaged?

7. Draw the practical implementation that can be used to measure the output impedance of the circuit on the virtual board:



○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○

8. From the DMM below, answer the following questions:



1. If I want to measure a DC voltage range between 8 and 30 Volts what buttons/inputs will I use?

2. What about measuring an AC current range in μA ?

3. What does it mean when I want to measure a resistance and the display shows a blinking zero?

4. I want to test diode anode and cathode terminals. I press buttons 8 and 10 but the display shows a blinking zero on all the possible configurations. Tell me what might be wrong.

5. Is there a way to measure/calculate the peak value of sinusoidal wave using the DMM? If yes tell me what button/inputs you will use?
