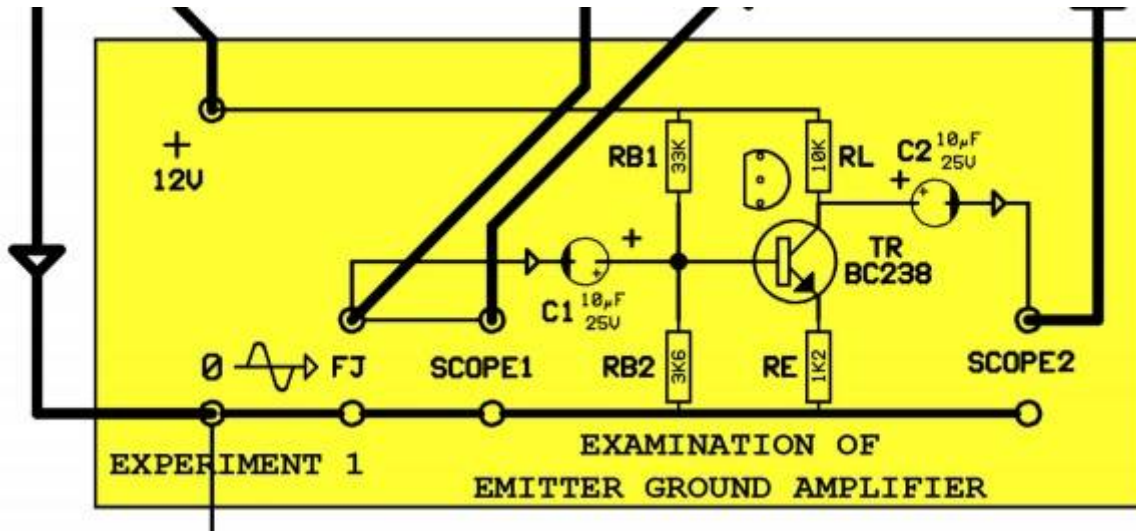


$h_{FE}=100$, $h_{fe}=100$, $I_C \gg I_B$, $i_c \gg i_b$

1-) Analyze this circuit for DC. Find I_C , I_B for each transistors.

2-)



Make the DC and AC analyze of this circuit.

$h_{FE}=50$ $h_{fe}=50$, $I_C \gg I_B$, $i_c \gg i_b$

a) Find I_C , I_B

b) Find i_c , i_b

c) Find voltage gain

d) Measure the I_E with using Ampermeter

3-)

For a JFET,

$I_{DSS}=15\text{mA}$, $V_p(\text{V cut-off})=-4.5\text{V}$

a) Find the I_D for $V_{GS} = -3\text{V}$

b) Find the I_D for $V_{GS} = -4.5\text{V}$

c) Find the I_D for $V_{GS} = -1.5\text{V}$

d) Find the I_D for $V_{GS} = 0\text{V}$

d) Draw a JFET and sign pins (legs) of JFET.

e) Draw the output characteristics of JFET for given and calculated values in (a-d)

Notes:

- It is advised to read all “theory” documents of experiments. (especially 6 and 9)
- You should learn all topics. Exam questions are not restricted with these topics
- In exam it is forbidden to use calculator. But in this example you can solve with calculator, because the values are not well selected to solve easily by hand.
- It is advised to read “ee working sheets” document.