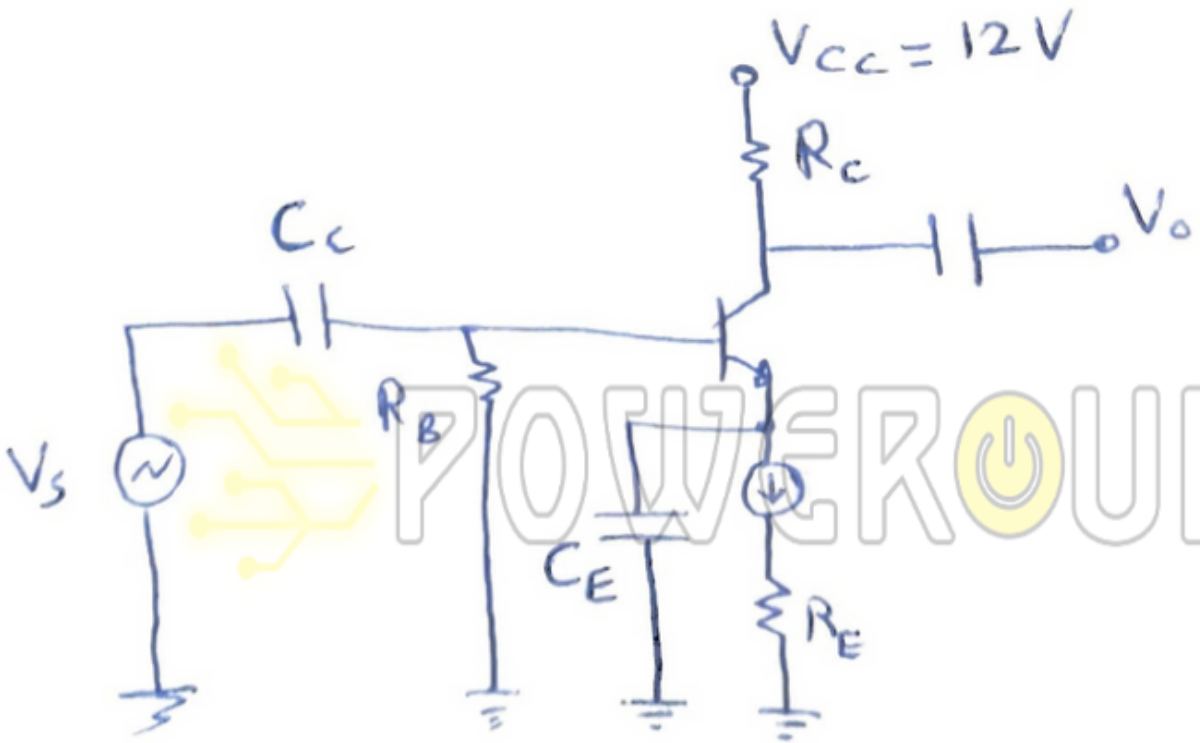
Question 1/4

For the Electronic Circuit shown in the Figure.



Zoom image

If you Know:

RC = 1 kohm, RE = 500 ohm, RB = 100 kohm, and Io = 2 mA
For the Transistor: VT = 0.026V, VBE = 0.7V, VCE(SAT) = 0.2V, and Beta = 100;

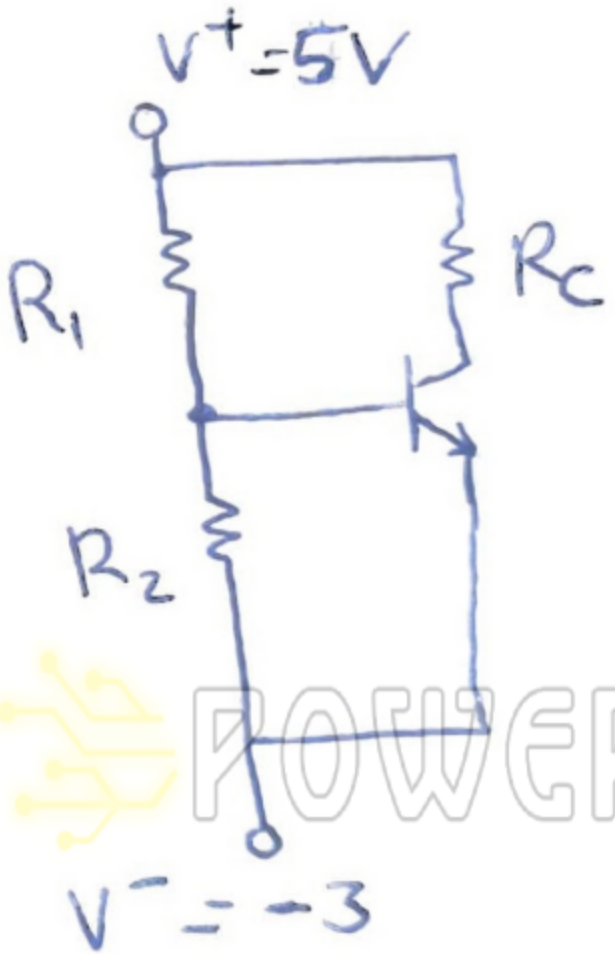
Find the small signal Voltage gain Av=Vo/Vs.

If you Know:

RC = 1 kohm, RE = 500 ohm, RB = 100 kohm, and Io = 2 mA
For the Transistor: VT = 0.026V, VBE = 0.7V, VCE(SAT) = 0.2V, and Beta = 100;

Find the small signal Voltage gain Av=Vo/Vs.

- ○ -33
- ○ -66
- ○ -88
- ○ -77
- ○ None.
- ○ -22



Zoom image

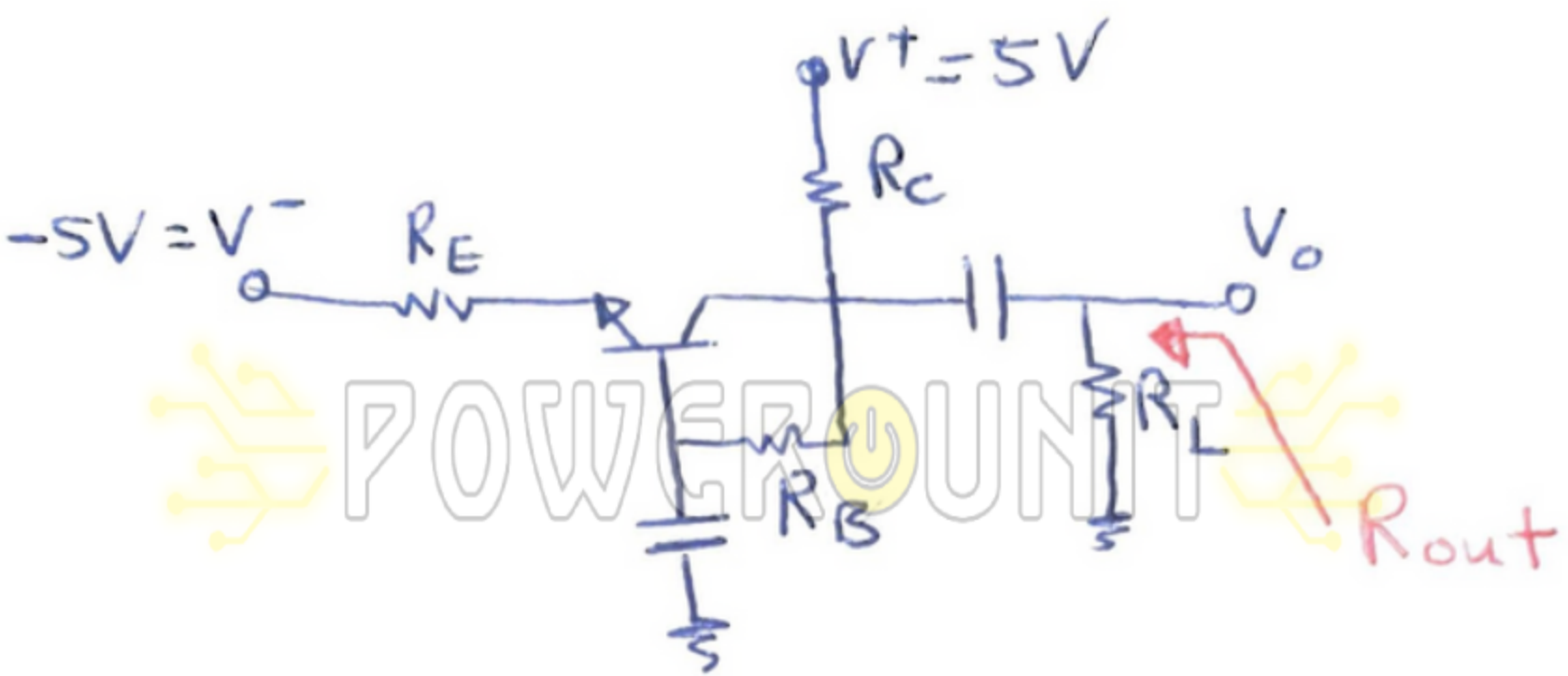
If you Know:

RC = 2 kohm, R1 = 90 kohm, R2 = 10 kohm.
For the Transistor: VT = 0.026V, VBE = 0.7V, VCE(SAT) = 0.2V, and Beta = 100;

Find the value of ICQ

Question 3/4

For the Electronic Circuit shown in the Figure.



Zoom image

If you Know:

RC = 2kohm, RE = 300 ohm, RB = 100 kohm, and RL = 1 kohm.
For the Transistor: VT = 0.026V, VEB = 0.7V, VEC(SAT) = 0.2V, and Beta = 300;

Find the indicated output resistance Rout.

If you Know:

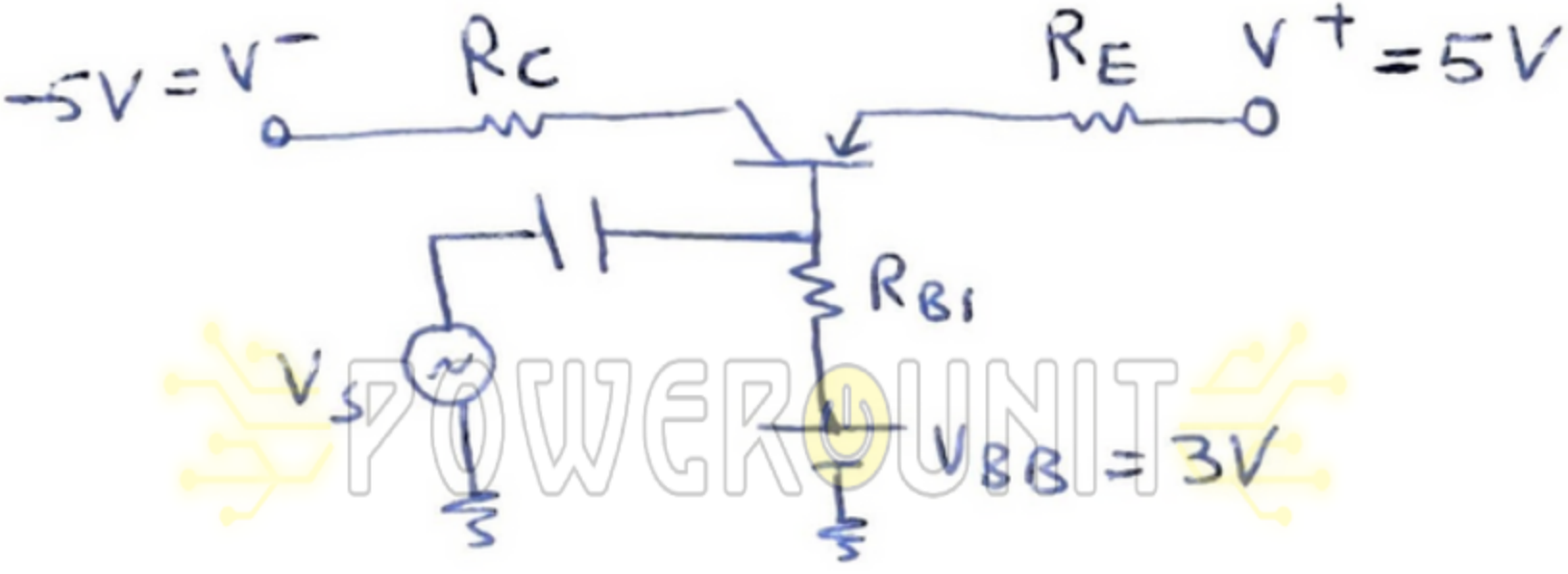
RC = 2kohm, RE = 300 ohm, RB = 100 kohm, and RL = 1 kohm.
For the Transistor: VT = 0.026V, VEB = 0.7V, VEC(SAT) = 0.2V, and Beta = 300;

Find the indicated output resistance Rout.

- 1.5 kohm
- 330 ohm
- None.
- 4.2kohm
- 662 ohm
- 890 ohm

Question 4/4

For the Electronic Circuit shown in the Figure.



Zoom image

If you Know:

RC = 2kohm, RE = 100 ohm, and RB1 = 100kohm.
For the Transistor: VT = 0.026V, VBE = 0.7V, VCE(SAT) = 0.2V, and Beta = 100;

Find the small signal rpi.