Description of the project:

Design an amplifier with the below specifications:

1)only **BJT** transistors can be used.

2) VA = 100 V , $|VCE{-}sat|$ = 0.2 V , $|VBE{-}on|$ = 0.7 V

3)it should be a differential amplifier with two inputs and one output.

4) $Vcc = -VEE = 5\ V$

5) $Av{-}diff \geq 40{,}000$

6) $Output\ Swing \geq \mp 3.5\ V$

7) $Ic\ min{-}transistors = 50\ \mu A$

8)you can not use current source and you have to design it if you want a current source.

9)minimize the consumption of power.

10)calculate CMRR of your amplifier.