10-10 1. 不能稳定，电压波动不在稳压区内

2. $\frac{U_{Imax}-U_o}{R} < I_{Zmax}$

$U_{Imax}=1.2\cdot 1.1U_2=19.8V$　$R>\frac{U_{Imax}-U_o}{I_{Zmax}}=363\Omega$

$\frac{U_{Imin}-U_o}{R}-I_{omax}>I_Z$

$U_{Imin}=1.2\cdot 0.9U_2=16.2V$　$R<\frac{U_{Imin}-U_o}{I_{omax}+I_Z}=680\Omega$

$363\Omega<R<680\Omega$

10-11 1. $U_2=\frac{U_1}{1.2}=\frac{24V}{1.2}=20V$

2. 电位器调最下端：$\frac{U_o R_4}{R_3+R_{RP}+R_4}=U_{BE}+U_Z$

$U_{o1}'=\frac{R_3+R_{RP}+R_4}{R_4}(U_{BE}+U_Z)=18V$

电位器调最上端：$\frac{U_o(R_4+R_{RP})}{R_3+R_{RP}+R_4}=U_{BE}+U_Z$

$U_{o1}''=\frac{R_3+R_{RP}+R_4}{R_4+R_{RP}}(U_{BE}+U_Z)=9V$

U_o可调：9~18V

3. $U_{o2}=\frac{R_3+R_{RP}+R_4}{R_4}(U_{BE}+U_Z)=24V$

$U_1=24V$　$U_{o2}=24V$　$U_{CES_1}=0V$　饱和

$U_{omax}=24-2=22V$

联系方式：_____

10-19. $U_{omax} = (U_{XX} + U_{EB}) \frac{R_1 + R_{RP} + R_3}{R_1} = 53.2V$

$U_{omin} = (U_{XX} + U_{EB}) \frac{R_1 + R_{RP} + R_3}{R_1 + R_{RP}} = 17.7V$

∴ U_o 可调范围 17.7V~53.2V