10). Determine re ,find Zi and Av , calculate Ai

. =46.02

IE = (β+1)IB =(81)46.02 = 3.72

= = 6.98 Ω

Zb = βre =(80)6.98 =13.36

Zi = Rb‖Zb = 270‖991.6 = =12.84 kΩ

== -3.35

==7.68

11). Determine re and βre ,Find Zi and Zo ,calculate Av and Ai

. =37.23

IE = (β+1)IB =(111)37.23 = 4.132

= = 6.29 Ω and βre = 110×6.29 =691.9

Zb = βre +(β+1)Re =691.9+(111)2.7 kΩ =991.6

Zi = Rb‖Zb = 270‖991.6 = =212.21 kΩ

==3.00

==-238.14

12). . =10.58

IE = (β+1)IB =(121)10.58 = 1.280

= = 20.31 Ω

Zb = βre +(β+1)Re =120(20.31)+(121)5.6 kΩ =3.114

Zi = Rb‖Zb = 5.6‖3.114 = =5.58 kΩ

=-=- 0.04

Vo = - 0.04 × 1 =-0.04

13). . =42.13

IE = (β+1)IB =(201)42.13 = 8.468

= = 3.07 Ω

Zb = βre +(β+1)Re =200(3.07)+(201)2 kΩ =1016

Zi = Rb‖Zb = 56‖1016 = =53.07kΩ

==0.39

==-10.34

14). . =0.77

= = 33.76

Zi = RE‖re =6.8 ‖33.76 = =5.65 kΩ

==0.13

15). . =27.03

IE = (β+1)IB =(76)27.03 = 2.054

= = 2.054 Ω

==- 0.28

== 3.43