

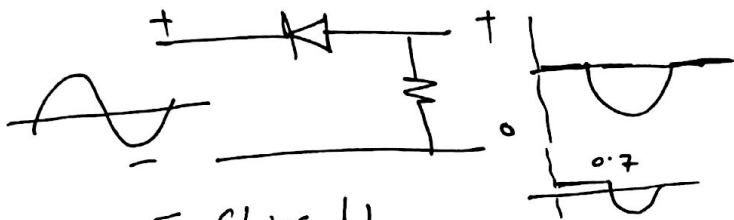
for all assume All diodes idea.

2) clippers (limiters)

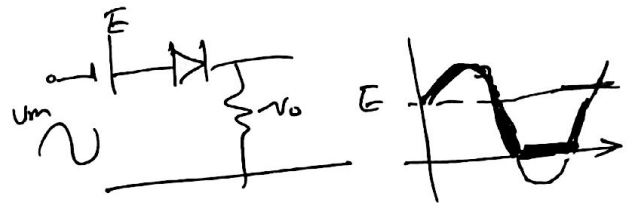
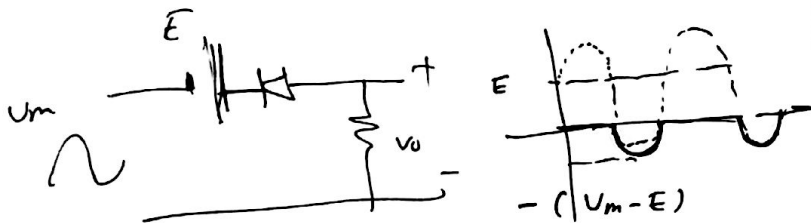
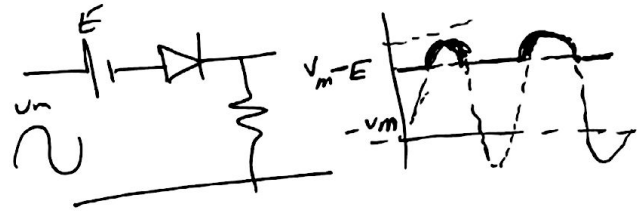
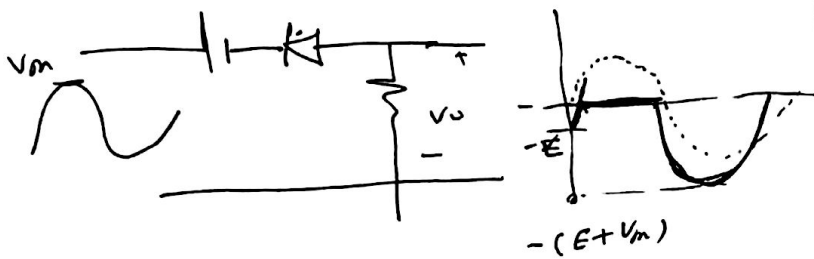
Series clippers

⊛ +ve clippers

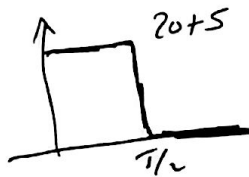
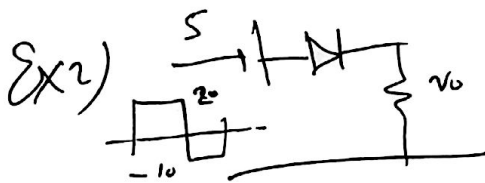
⊛ -ve clippers



E (biased)

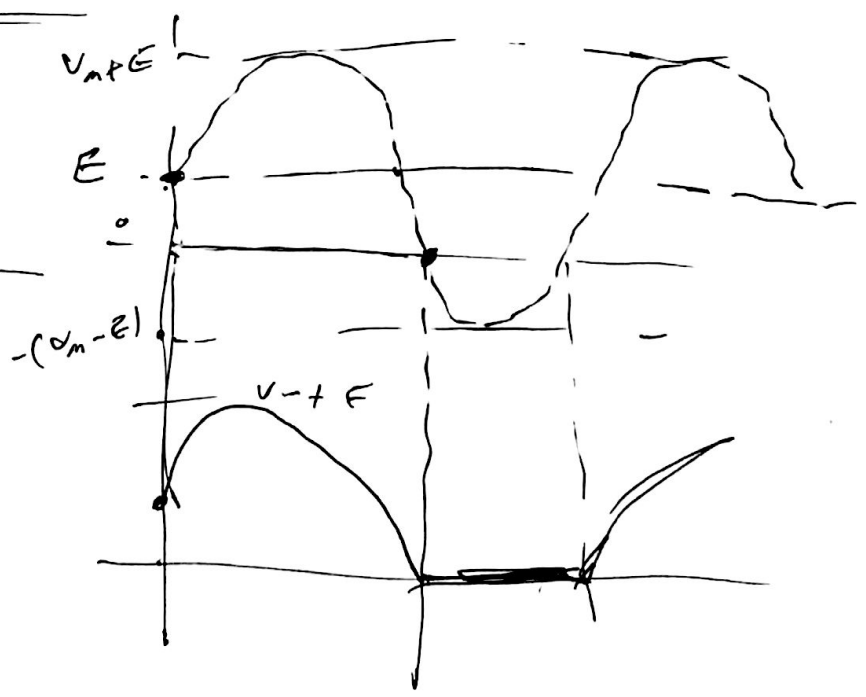
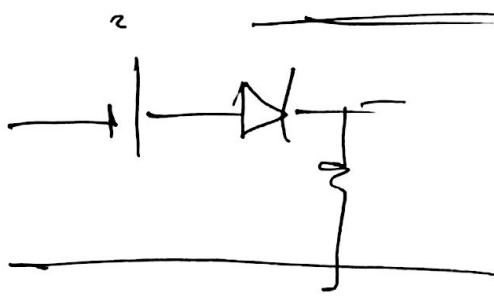
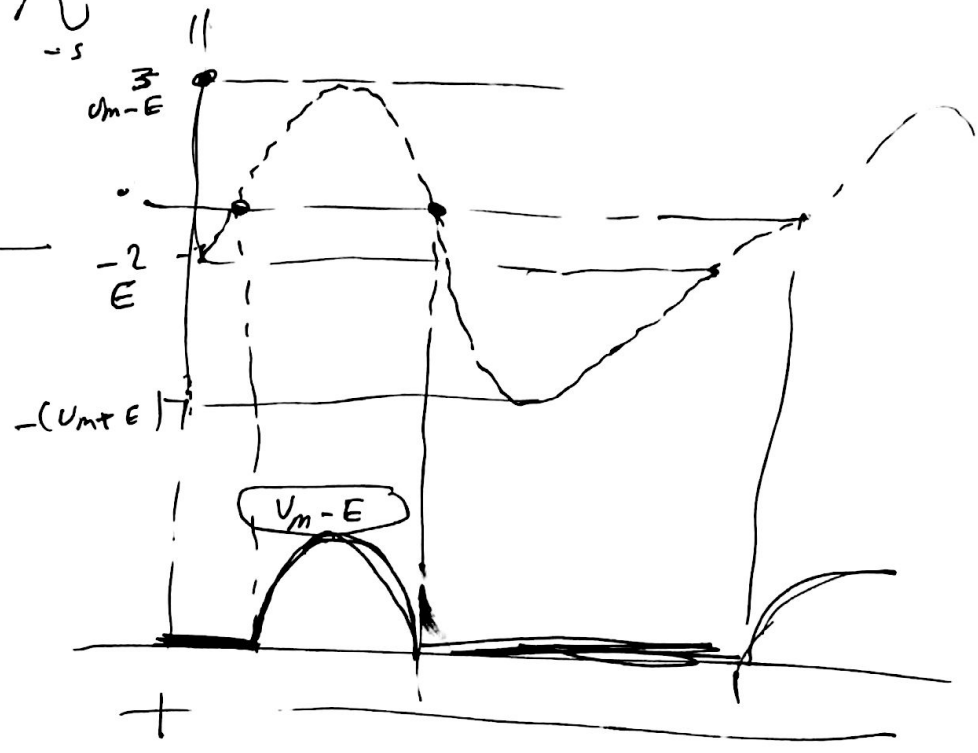
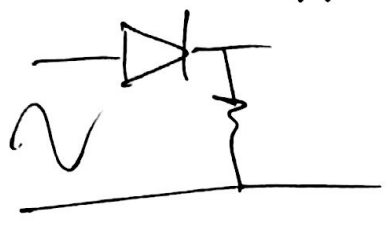


Don ($V_o = V_i + E = 25$)
 Don ($V_i = -ve$)



Don $V_o = V_i + E = 20 + 5 = 25$
 Don $V_i = -10 + 5 = -5$
 $V_o = 0$

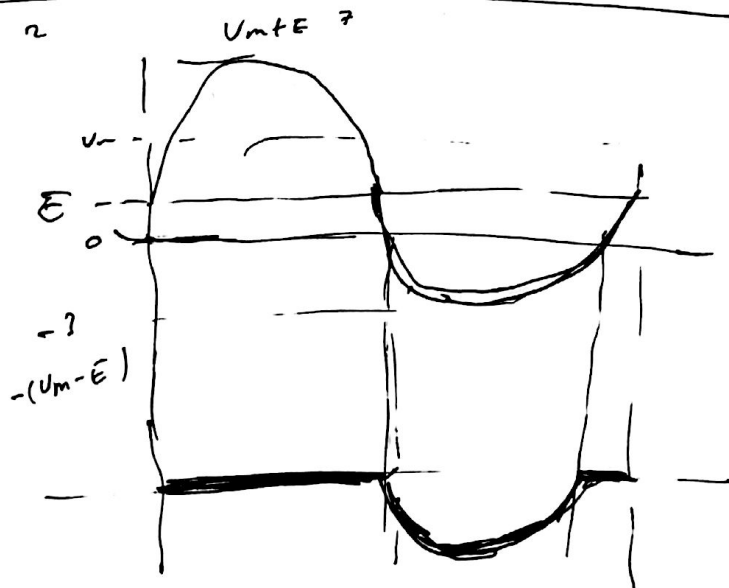
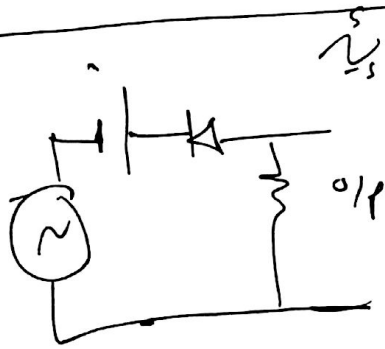
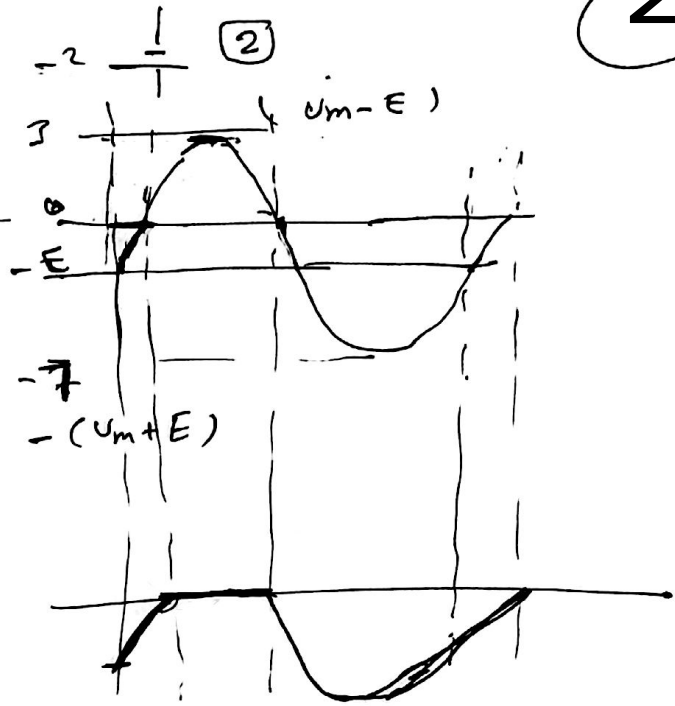
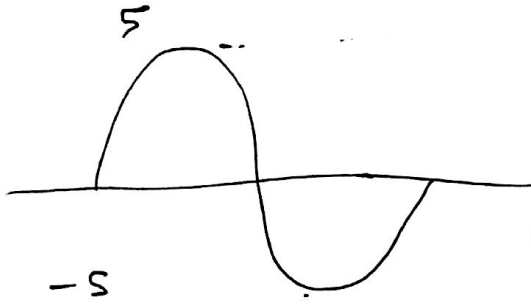
- rec clippr



Handwritten scribble or signature.

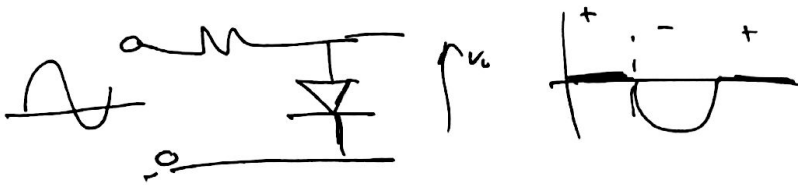
True Clippers

4



II Parallel clipper

(*) ~~negative~~ Positive

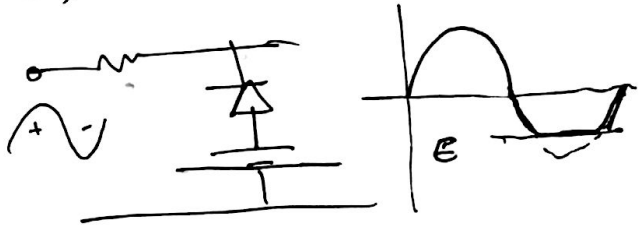
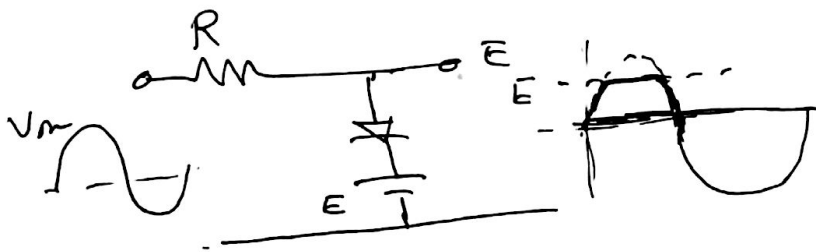


in the half cycle D on (S.C) \therefore o/p = 0
 in the half cycle D off (O.C) \therefore has o/p \cup

negative



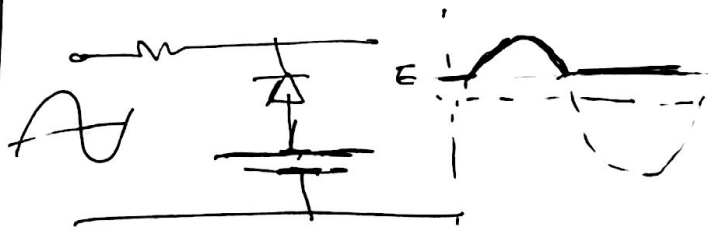
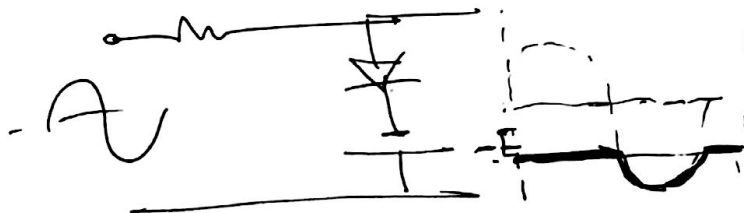
(biased)



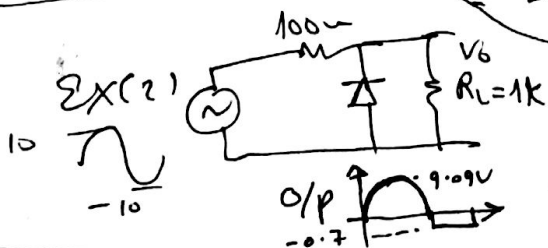
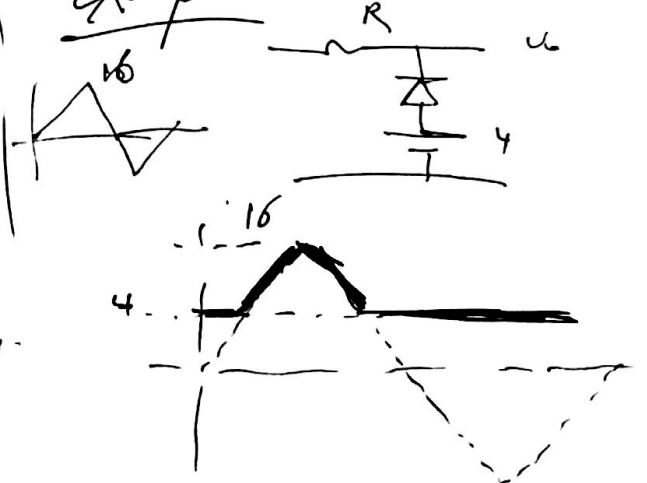
$E > 0$
 $E < 0$
 $E = 0$

$E < v_{in}$
 $E > v_{in}$

$E > v_{in}$



Example

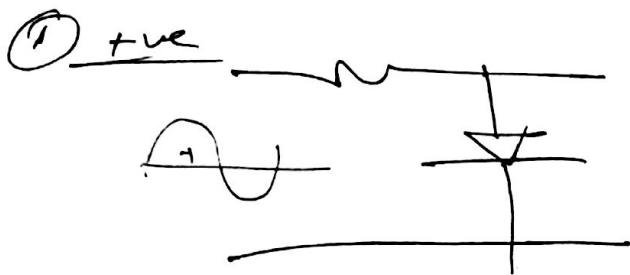


$$V_{out} = \frac{V_{in} R_L}{R_L + R} = \frac{1000 \times 10}{1100} = 9.09V$$

$$V_{out}(-ve) = -0.7V$$

Parallel clippers

6



$$V_o = V_{in} - V_R$$

if $V_{in} > V_E \rightarrow$ Diode (sc) $V_o = E$
 if $V_{in} < V_E \rightarrow$ Diode (oc) $V_o = V_{in}$

