(a) 
$$\hat{\boldsymbol{x}} \xrightarrow{G_{X o Y}} \hat{\boldsymbol{y}} \xrightarrow{G_{Y o X}} \tilde{\boldsymbol{x}} \xrightarrow{L_{cyc}} \boldsymbol{x}$$

(b) 
$$egin{array}{c|c} egin{array}{c|c} egin{array}{c|c} egin{array}{c|c} egin{array}{c|c} G_{X 
ightarrow Y} & egin{array}{c|c} egin{array}{c} L_{cyc} & egin{array}{c} egin{array}{c} egin{array}{c} egin{array}{c} egin{array}{c} C_{X 
ightarrow Y} & egin{array}{c} egin{array}{c} egin{array}{c} egin{array}{c} C_{X 
ightarrow Y} & egin{array}{c} egin{array}{c} C_{X 
ightarrow Y} & egin{array}{c} egin{array}{c} C_{X 
ightarrow Y} & e$$

(c) 
$$\hat{\boldsymbol{x}} \xrightarrow{G_{X \to Y}} \hat{\boldsymbol{y}} \xrightarrow{D_Y} P(\hat{y}) \xrightarrow{L_{adv}} 1$$

(d) 
$$y$$
  $\hat{y}$   $\hat{y}$   $\hat{y}$   $\hat{y}$