④ (A) given:- $U = 0.7\ W/m^2K$

$\Delta T = 25^\circ C$

$= 25 + 273.15 = 298.15\ K$

$A = 107.67\ sq.ft$

$= 107.67 \times 0.093 = 10.0\ m^2$

w.k.t:-

$$Q = U \cdot A \cdot \Delta T$$

$= 0.7 \times 10.0 \times 298.15$

$= 2087.05\ W$

⑤ (A) given:- $A = 20\ sq.m$

$U = 0.5\ W/m^2K$

$\Delta T = 30^\circ C$

$= 30 + 273.15 = 303.15\ K$

w.k.t:-

$$Q = U \cdot A \cdot \Delta T$$

$= 0.5 \times 20 \times 303.15$

$= 3031.5\ W$