

Max. Marks: 4

Questions: 1

Q.1 A Carnot engine (E) is working between two temperatures 473 K and 273 K. In a new system two engines - engine E_1 works between 473 K to 373 K and engine E_2 works between 373 K to 273 K. If η_{12} , η_1 and η_2 are the efficiencies of the engines E, E_1 and E_2 , respectively, then

(1) $\eta_{12} = \eta_1 \eta_2$ (2) $\eta_{12} = \eta_1 + \eta_2$
(3) $\eta_{12} \geq \eta_1 + \eta_2$ (4) $\eta_{12} < \eta_1 + \eta_2$

Scan or tap for the full solution

[illegible]