

Amount of solar energy received on the earth's surface per unit area per unit time is defined a solar constant. Dimension of solar constant is

(1)  $ML^2T^{-2}$

(2)  $MLT^{-2}$

(3)  $M^2L^0T^{-1}$

(4)  $ML^0T^{-3}$

$$(b) \text{ Solar constant} = \frac{\text{Energy}}{\text{Time Area}}$$

Dimension of Energy,  $E = ML^2T^{-2}$

Dimension of Time = T

Dimension of Area =  $L^2$

$\therefore$  Dimension of Solar constant

$$= \frac{M^1L^2T^{-2}}{TL^2} = M^1L^0T^{-3}.$$