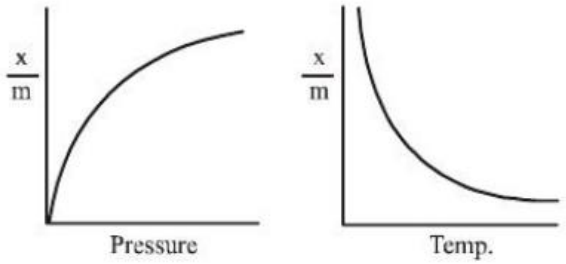
6. A gas undergoes physical adsorption on a surface and follows the given Freundlich adsorption isotherm equation $\frac{x}{m} = kp^{0.5}$ Adsorption of the gas increases with :

[April 10, 2019 (I)]

(a) Decrease in p and increase in T
(b) Decrease in p and decrease in T
(c) Increase in p and decrease in T
(d) Increase in p and increase in T

Ans. (c)

6. **(c)** Freundlich adsorption is applicable for physical adsorption. The variation of extent of adsorption with (i) Pressure and (ii) Temperature is given by the following curves.



Hence, extent of adsorption increases with increase in pressure and decrease in temperature.