

- 6 (a) Define *potential difference* (p.d.).

.....[1]

- (b) A battery of electromotive force 20V and zero internal resistance is connected in series with two resistors R_1 and R_2 , as shown in Fig. 6.1.

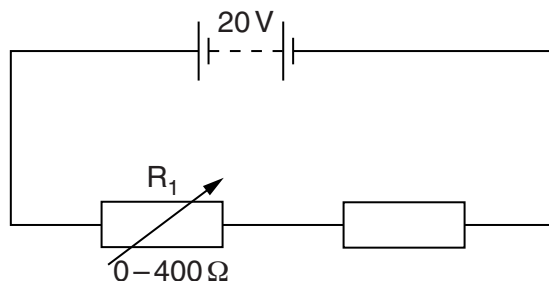


Fig. 6.1

The resistance of R_2 is 600 Ω . The resistance of R_1 is varied from 0 to 400 Ω .

Calculate

- (i) the maximum p.d. across R_2 ,

maximum p.d. = V [1]

- (ii) the minimum p.d. across R_2 .

minimum p.d. = V [2]