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Department of Science and Humanities  
Applied Chemistry Laboratory

Subject: Engineering Chemistry

Observation

Weight of empty crucible = 22.4017 gm (W<sub>1</sub>)

Weight of crucible + Sample (Before heating) = 23.2261 gm (W<sub>2</sub>)

Weight of sample before drying =  $\frac{23.2261 - 22.4017}{0.8244}$  gm (W<sub>2</sub> - W<sub>1</sub>)  
= 0.8244 gm (W<sub>3</sub>)

Weight of crucible + sample (after heating) = 23.0740 gm (W<sub>4</sub>)

Weight of the sample (after heating) =  $\frac{23.0740 - 22.4017}{0.6723}$  gm (W<sub>4</sub> - W<sub>1</sub>)  
= 0.6723 gm (W<sub>5</sub>)

Loss in weight of sample =  $\frac{0.6723 - 0.8244}{0.1521}$  gm (W<sub>5</sub> - W<sub>3</sub>)  
= 0.1521 gm (W<sub>6</sub>)



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Calculations

Weight of sample = 0.8244 gm (W3)

Loss in weight = 0.1521 gm (W6)

$$\% \text{Moisture} = \frac{\text{Loss in weight}}{\text{Wt of sample taken}} \times 100$$

$$= \frac{W_6 \times 100}{W_3}$$

$$= \underline{18.4497} \%$$

Result

: Percentage of moisture in given charcoal powder

$$= \underline{18.4497\%}$$