

## Calculate the osmolarity of sucrose?

Osmolality of RBC = 0.308 Osmolar

$O = M \times \text{no. of dissociation particles}$

Sucrose does not dissociate (no. of dissociation particles = 1)

$$0.308 = M \times 1 = 0.308 \text{ M}$$

\*\*To calculate in w/v% expression

$M = \text{no. of moles} / V \text{ (in L)}$

no. of moles = weight / Molecular weight

→ So, weight =  $M \times \text{Molecular weight (in 1000 ml)} = 0.308 \times 342.3 =$

105.4 g

105.4 → 1000 ml

? → 100 ml

w/v% of NaCl =  $(105.4 \times 100) / 1000 = 10.54\% \rightarrow \text{isotonic}$