⑤ $.2M\ LiCl \equiv \frac{.2 \text{ moles } LiCl}{1{,}000 \text{ ml}}$

since 1 mole of LiCl weighs 42.5 g
.2 " " " " $.2 \times (42.5g) = 8.5g$

so, add $\frac{8.5 \text{ g } LiCl}{1{,}000 \text{ ml}}$

⑥ since $\frac{8.5 \text{ g } LiCl}{1{,}000 \text{ ml}} = .2M\ LiCl$

$$\frac{8.5g}{1{,}000ml} = \frac{X}{100\ ml}$$

$$1{,}000X = 850$$

$$X = \frac{850}{1{,}000} = .85g$$

$$\Rightarrow \frac{.85g\ LiCl}{100\ ml} \equiv \boxed{.85\%}$$

⑦ $.3M\ GLUCOSE \equiv \frac{.3 \text{ moles } C_6H_{12}O_6}{1{,}000 \text{ ml}}$

since 1 mole of $C_6H_{12}O_6$ weighs 180g
.3 mole of $C_6H_{12}O_6$ weighs $.3 \times (180g) = 54g$