(b) : Mass of 1000 mL NaCl solution = 1250 g

($\because d = 1.25$ g/mL)

Mass of solute = No. of moles × Molar mass

$= 3 \times 58.5 \text{ g} = 175.5 \text{ g}$

$\therefore$ Mass of solvent = 1250 g – 175.5 g = 1074.5 g

$$\text{Molality} = \frac{\text{Moles of solute}}{\text{Mass of solvent (in kg)}} = \frac{3 \times 1000}{1074.5} = 2.79 \text{ m}$$