Normal:

$$\text{log posterior} \propto \log\left(\prod_{j=1}^{n} e^{-\frac{1}{2}\left(\frac{\beta_j}{s_j}\right)^2} \cdot \prod_{i=1}^{n} e^{-\frac{1}{2}(y_i - x_i^T\beta)^2}\right)$$

$$\propto \sum_{j=1}^{n} -\frac{1}{2}\left(\frac{\beta_j}{s_j}\right)^2 + \sum_{i=1}^{n} -\frac{1}{2}(y_i - x_i^T\beta)^2$$

$$\propto \sum_{j=1}^{n} \frac{1}{2}(y_i - x_i^T\beta)^2 + \frac{1}{2}\sum_{j=1}^{n}\left(\frac{1}{s_j}\right)^2\beta_j$$

$\therefore$ Which is ridge

Laplace:

$$\text{log posterior} \propto \log\left(\prod_{j=1}^{n} e^{\left(\frac{-\beta_j}{s_j}\right)} + \prod_{i=1}^{n} e^{-\frac{1}{2}(y_i - x_i\beta)^2}\right)$$

$$\propto \sum_{j=1}^{n} \frac{|\beta_j|}{s_j} - \frac{1}{2}\sum_{j=1}^{n}(y_i - x_i^T\beta)^2$$

$$\propto \frac{1}{2}\sum_{j=1}^{n}(y_i - x_i^T\beta)^2 + \sum_{j=1}^{n}\frac{|\beta_j|}{s_j}$$

$\therefore$ Which is lasso.