$$cosa=-\frac{\sqrt{6}}{4} a\in \left(\frac{pi}{2};pi\right)$$

$$cos^{2}a+sin^{2}a=1⟹\sin(a=\sqrt{1-cos^{2}a})$$

$$sina=\sqrt{1-\left(-\frac{\sqrt{6}}{4}\right)^{2}=}\sqrt{1-\frac{6}{16}}=\sqrt{\frac{10}{16}}=\frac{\sqrt{10}}{4}$$

$$tga=\frac{sina}{cosa}=\frac{\sqrt{10}}{4}:\left(-\frac{\sqrt{6}}{4}\right)=-\sqrt{\frac{10}{6}}=-\sqrt{\frac{5}{3}}=-\frac{\sqrt{15}}{3}$$

$$ctga=\frac{cosa}{sina}=\left(-\frac{\sqrt{6}}{4} \right):\frac{\sqrt{10}}{4}=-\sqrt{\frac{6}{10}}=-\sqrt{\frac{3}{5}}=-\frac{\sqrt{15}}{5}$$