解:

(I) $f'(x) = -2\alpha \sin 2x + (\alpha - 1)(-\sin x) = -4\alpha \sin x \cos x - \alpha \sin x + \sin x;$

(II) $|f(x)| = |2\alpha cos^2(x) - \alpha + \alpha cosx + \alpha - cosx - 1| =$

(III) $f(x) = 2\alpha cos^2(x) - \alpha + \alpha cosx + \alpha - cosx - 1$
$= 2\alpha(\cos x + \frac{\alpha-1}{4\alpha})^2 - \frac{\alpha^2-2\alpha+1}{8a} - 1$
$= 2\alpha(\cos x + \frac{\alpha-1}{4\alpha})^2 - \frac{\alpha^2+6\alpha+1}{8a}$