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SOME CONFORMALLY INVARIANT FULLY NONLINEAR ELLIPTIC EQUATIONS ON MANIFOLDS WITH BOUNDARY

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We consider, on compact manifolds with boundary, some conformally invariant fully nonlinear elliptic equations related to the schouten tensor together with some boundary mean curvature conditions. This is a fully nonlinear version of the Yamabe problem on manifolds with boundary. We will present some local gradient and hessian estimates under suitable conditions. Moreover, we will address some existence results.