

**10 (i)** A curve has equation  $y = 16x + \frac{1}{x^2}$ . Find

(A)  $\frac{dy}{dx}$ , [2]

(B)  $\frac{d^2y}{dx^2}$ . [2]

**(ii)** Hence

- find the coordinates of the stationary point,
- determine the nature of the stationary point. [5]