Let $y = e^x + \sin x + \cos x$

$y' = e^x + \cos x - \sin x$

$y'' = e^x - \sin x - \cos x$

$y''' = e^x - \cos x + \sin x$

Now consider

$$a y''' + b y'' + c y' + d = 0$$

$$\Rightarrow a(e^x - \cos x + \sin x) + b(e^x - \sin x - \cos x) + c(e^x + \cos x - \sin x) + d(e^x + \sin x + \cos x) = 0$$

$$\Rightarrow e^x(a+b+c+d) + \cos x(-a-b+c+d) + \sin x(a-b-c+d) = 0$$

Since $e^x, \cos x, \sin x$ are l.i

$$\Rightarrow \boxed{\begin{aligned} a+b+c+d &= 0 \\ -a-b+c+d &= 0 \\ a-b-c+d &= 0 \end{aligned}}$$

option (2), (1) are correct