$F = (2xy + z)\hat{i} + (z + x^2)\hat{j} + (x + y)\hat{k}$

$$\nabla \times F = \begin{vmatrix} \hat{i} & \hat{j} & \hat{k} \\ \frac{\partial}{\partial x} & \frac{\partial}{\partial y} & \frac{\partial}{\partial z} \\ 2xy + z & z + x^2 & x + y \end{vmatrix}$$

$$= \hat{i}(1-1) - \hat{j}(1-1) + \hat{k}(2x - 2x) = \boxed{0}$$

$\Rightarrow$ F is conservative

$\Rightarrow$ a scalar potential exist such that

$$F = \nabla \phi$$

$\frac{\partial \phi_1}{\partial x} = 2xy + z$, $\frac{\partial \phi_2}{\partial y} = z + x^2$, $\frac{\partial \phi_3}{\partial z} = x + y$

$\phi_1 = x^2 y + zx$ $\qquad \phi_2 = zy + x^2 y$ $\qquad \phi_3 = zx + zy$

Thus $\boxed{\phi = x^2 y + zx + zy}$

$$\int F \cdot dr = \phi(2, 1, -1) - \phi(0, 0, 0)$$

$$= (4 - 2 - 1) - (0) \Rightarrow \boxed{1}$$