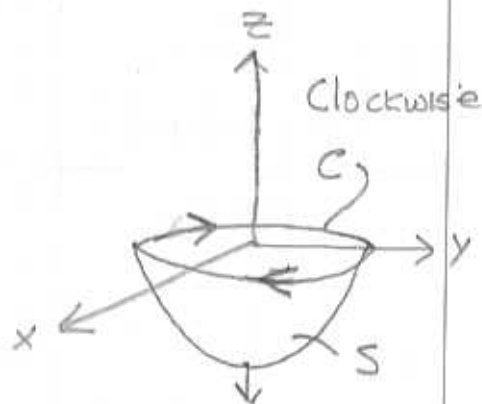


Page 912 #16

$$\vec{F} = -y\vec{i} + x\vec{j} + \cos(xy)\vec{k}$$

$$\int_S \text{curl } \vec{F} \cdot d\vec{A} \stackrel{\text{Stokes}}{=} \int_C \vec{F} \cdot d\vec{r}$$



on C ,

$$x = \cos t$$

$$y = -\sin t$$

$$d\vec{r} = -\sin t \vec{i} - \cos t \vec{j} + dt \vec{k}$$

$$= \int_0^{2\pi} (-\sin^2 t - \cos^2 t) dt$$

$$= \int_0^{2\pi} -1 dt = -t \Big|_0^{2\pi} = \boxed{-2\pi}$$