King Fahd University of Petroleum and Minerals
MATH-302
Quiz 3

Name:- **ID:-** **Sec.:01**

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(1) Find the curl and the divergence of $\mathbf{F} = yz\boldsymbol{i} + 4xy\boldsymbol{j} + y\boldsymbol{k}$.

(2) In an inverse square force field $\mathbf{F} = c\boldsymbol{r}/|\boldsymbol{r}|^3$, where c is a constant and $\boldsymbol{r} = x\boldsymbol{i} + y\boldsymbol{j} + z\boldsymbol{k}$, find the work done in moving a particle along the line from (1,1,1) to (3,3,3).

King Fahd University of Petroleum and Minerals
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Quiz 3

Name:- **ID:-** **Sec.:05**

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(1) Find the curl and the divergence of $\mathbf{F} = xy\boldsymbol{i} + y^2\boldsymbol{j} - xz\boldsymbol{k}$.

(2) In an inverse square force field $\mathbf{F} = c\boldsymbol{r}/|\boldsymbol{r}|^3$, where c is a constant and $\boldsymbol{r} = x\boldsymbol{i} + y\boldsymbol{j} + z\boldsymbol{k}$, find the work done in moving a particle along the line from (1,1,1) to (3,3,3).