

**Department of Electrical Engineering**  
**Final Term Assignment Spring 2020**  
**B.tech(E)**  
**Date: 22/06/2020**

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**Course Details**

**Course Title:** Electromagnetic Fields **Module:** 4th  
**Instructor:** Engr.Perniya Akram **Total Marks:** 50

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**Student Details**

**Name:** \_\_\_\_\_ **Student ID:** \_\_\_\_\_

Note: Attempt all of the following questions.

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Q1.	State the differences and similarity between gradient and divergence providing relevant example.	Marks 10
Q2.	Find gradient of function F at point(1,1,2) for $F=x^3+y^3z$ .	Marks 10
Q3.	Compute $\text{div}\vec{F}$ and $\text{curl}\vec{F}$ for $\vec{F} = x^2y\vec{i} - (z^3 - 3x)\vec{j} + 4y^2\vec{k}$ .	Marks 10
Q4.	State the relationship between electric potential and potential difference with examples.	Marks 10
Q5.	Find the expression for moving a point charge Q from one position to another by using Line integral.	Marks 10