**EEE361**

**ASSIGNMENT**

**SET-12**

1. Given that F = x2yax – yay, Find

a. where L is shown in figure below

b. where S is the area bounded by L

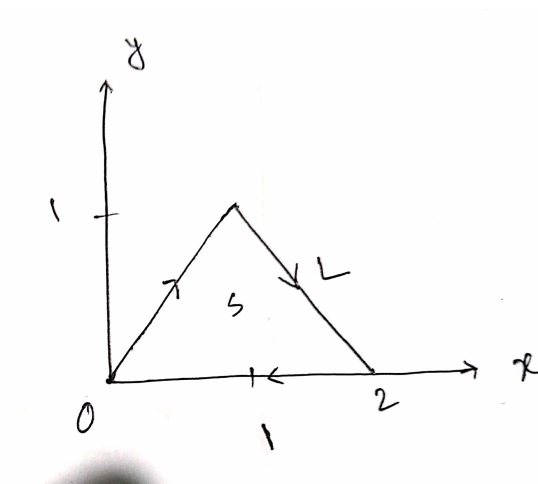


Fig: Problem 1

1. For time varying fields: Find which if the following equations are not satisfy Maxwell’s Equation. Also state why the expression/s don’t satisfy Maxwell’s Equation? (Show Calculation)
2. Show that in a pure dielectric medium the E field is a valid solution to the wave equation. Also find the dielectric constant (Assuming the permeability is µ0) and the velocity of propagation.
3. In a dielectric medium (ε = 9 ε0, µ = µ0), a plane wave with

Is incident on an air at z = 0 find

a.

b. k

c. The Incident **E**

d. The transmitted and reflected **E**

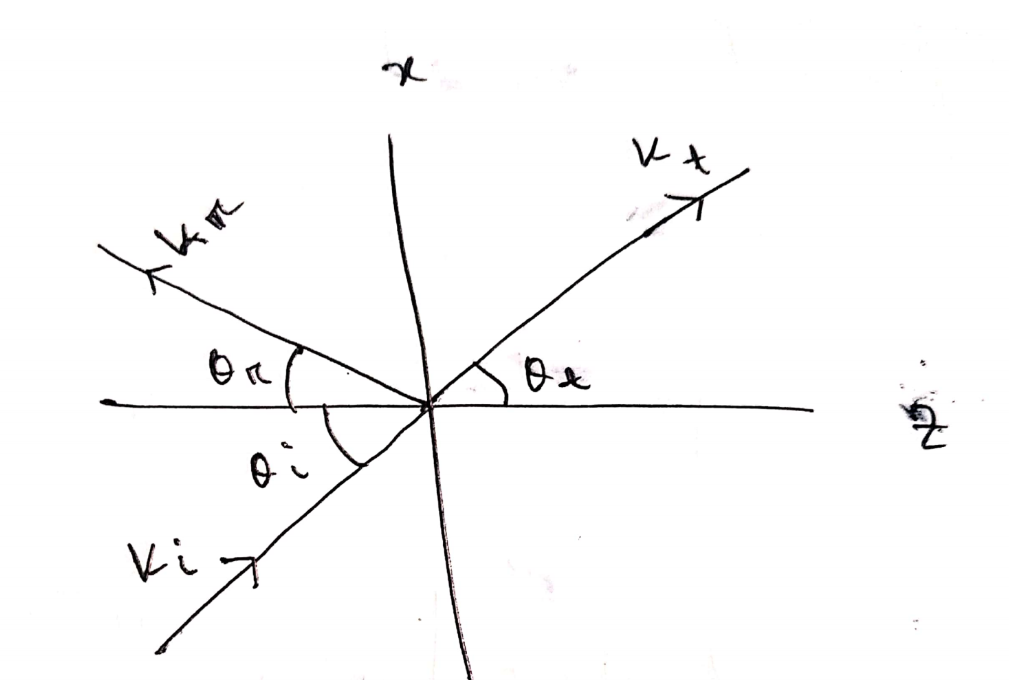


Fig: Problem 4

5. a. Explain the physical meaning of E = - .

To verify that E = yzax + xzay+ xyaz  V/m is truly an electric field, show that

b.

c. = 0, Where L is the edge of the square defined by 0 < x, y < 2, Z =1.