**Assignment 2**

**Answer all the questions:**

1. Find the simplest SOP for the function **F(x1, x2, x3 ,x4, x5) = ∑m(0, 1, 3, 5, 6, 7, 9, 11, 13, 14, 15, 19, 21, 25, 30, 31)** using K map and indicate the essential prime implicants. 3M
2. Use K map to find the minimum-cost SOP and POS expressions for the function

**P(x1, x2, x3, x4) = (x1’+x2’) (x1+x2’+x4) (x1’+x2+x4’) (x2+x3+x4’)** assuming that there are also don’t-cares defined as **D= ∑*(*2*,* 5*,* 10*)*.** 2M