**PAF - Kiet**

**Data Structures**

**Practice Assignment – 1**

**Issue Date : 20 – Oct – 2021**

1. Consider linear array A of length 50, suppose the base address of A = 300 and each element takes 4 bytes in memory, i.e. w = 4 bytes. Find the address of A[15], A[35], A[55].
2. Consider 3D array A[2,3,2], suppose the base address of A = 300 and each element takes 4 bytes in memory, i.e. w = 4 bytes. Find the address of A[1,2,0].
3. Consider the array A containing elements Allen, Clark, Dickens, Edwards, Goodman. Using the linear search algorithm, how many comparisons are used to locate, Edwards and Fisher.
4. Let A be an n x n square matrix array, write a program
5. Find the number of nonzero elements in A
6. Find the sum of the elements above the diagonal
7. Find the product of the diagonal elements