**22103101**

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**DS Lab**

**Week 2-Lab A**

**Q1.**

**A.**

Size of o1 : 8

Size of o2 : 16

Size of abc is : 16

The size of o1 will be 8 because the size of a pointer is 8 in a CPP 64-bit system.

**B.**

Size of o1 :8

Size of o2: 24

The size of o1 will be 8 because the size of a pointer is 8 in a CPP 64-bit system.

And since the class has o2 the biggest chunk drawn would be of size 8. Since int are arranged above and below double three of those data chunks of size 8 totaling to 24 will be used. Hence size of o2 will be 24

**C.**

Size of o1 :8

Size of o2: 24

Size of o2 will still be 24 because the third chunk will be filled by two int(s) of size 4 each

**D.**

Size of o1 :8

Size of o2: 24

**E.**

Size of o1 :8

Size of o2: 16

**F.**

Size of o1 :8

Size of o2: 20

Highest size of Chunk is 5 and there are 5 elements. Hence size will be 20.

**Ans 2.**

1. 4.5

A[0] will behave same as a\*.

1. 5

A[0] will behave same as a\*.

1. 88

Size of the pointer will remain the same.

1. Error

Pointer **Value** cannot be dynamically assigned

1. 5

Since it is an array of pointer a[0] will not create an error

1. 8

Size of pointer is 8

1. 5

Same as e. Part

1. Garbage Values

**Ans 3.**

#include <iostream>

#include <math.h>

#include <cstdlib>

using namespace std;

int main() {

cout << "Kindly Enter the length of The array: ";

int len;

cin >> len;

int \*A=new int[len];

for(int i=0;i<len;i++) A[i] = rand()%100;

for(int i=0;i<len;i++) if(A[i]%2==0) cout<< A[i]<<" ";

for(int i=0;i<len;i++) if(A[i]%2!=0) cout<< A[i]<<" ";

}