PROGRAMMING FUNDAMENTALS LAB # 13:

QUESTION 1:

#include <iostream>

using namespace std;

int main()

{

int A[10]={1,2,3,4,3,2,1,3,4,5};

int B[10]={0};

int sum;

for(int i=0;i<10;i++)

++B[A[i]];

for(int i=0;i<10;i++)

{

if(B[i]>1)

sum=sum+1;

}

cout<<"Total number of repitition of elements = "<<sum;

return 0;

}

QUESTION # 2:

#include <iostream>

using namespace std;

int main()

{

int A[10]={1,2,3,4,5,6,7,8,9,10};

int B[10]={10,9,8,7,6,5,4,3,2,1};

int C[20]={0};

int x=10;

for(int i=0;i<10;i++)

C[i]=A[i];

for(int i=10;i<20;i++)

{

if (x<20)

{

C[x]=B[i];

}

x++;

}

cout<<"Now the value of C = ";

for(int i=0;i<20;i++)

cout<<C[i]<<" ";

return 0;

}

QUESTION # 3:

#include <iostream>

using namespace std;

int main()

{

int A[25]={0,1,3,4,5,6,3,6,7,8,9,10,3,4,5,6,3,7,8,9,10,2,3,4,5};

int B[10]={0};

for(int i=0;i<25;i++)

++B[A[i]];

for(int i=0;i<10;i++)

{

cout<<i<<" has the frequency of : "<<B[i]<<endl;

}

return 0;

}

QUESTION # 4:

#include <iostream>

#include<stdlib.h>

#include<time.h>

using namespace std;

int main()

{

srand(time(NULL));

int a[10]={1,2,3,4,5,6,7,8,9,10};

int a1=rand() % 10 +1;

a[0]=a1;

for(int i=1; i<10; i++)

{

a1=rand() % 10+ 1;

for(int j=0;j<i;j++)

{

while(a1==a[j])

{

a1=rand() % 10+1;

}

a[i]=a1;

}

cout<<a[i]<<" ";

}

return 0;

}

QUESTION # 5:

#include <iostream>

#include<stdlib.h>

#include<time.h>

using namespace std;

int main()

{

int DF=1,N,R,UF=1,D,RF=1;

int A[10]={1,2,3,4,5,6,7,8,9,10};

cout<<"Choose a number from the array starting from 1 to 10 : ";

cin>>N;

R=rand()%N;

cout<<R;

for(int i=1;i<=R;i++)

{

RF=RF\*i;

}

for(int i=1;i<=N;i++)

{

UF=UF\*i;

}

D=N-R;

for(int i=1;i<=D;i++)

{

DF=DF\*i;

}

cout<<endl<<"Random Combination = "<<UF/(RF\*DF);

return 0;

}

QUESTION # 6:

#include <iostream>

using namespace std;

int main()

{

int z;

int a[15];

int b[15];

for(int i=0;i<15;i++)

{

cout<<"Enter the value "<<i+1<<" = ";

cin>>a[i];

}

for(int i=0;i<15;i++)

{

b[i]=a[i];

}

cout<< "Enter the number V given in the statement : ";

cin>>z;

for(int i=0;i<15;i++)

{

if(a[i]==z)

for(;i<10;i++)

a[i]=b[i+1];

}

a[9]=0;

for(int i=0;i<15;i++)

cout<<a[i]<<" ";

return 0;

}