Assignment 2

Question 1

#include <stdio.h>

int main()

{

int marks[5]={67,75,86,69,92};

for(int i=0;i<5;i++)

{

marks[i]+=5;

printf("New Marks=%d\n",marks[i]);

}

return 0;

}

Question 2

#include <stdio.h>

int main()

{ int marks[5];

printf("Enter Marks:\n");

for(int i=0;i<5;i++)

{

scanf("%d",&marks[i]);

if(marks[i]>=75)

printf("Grade A\n");

else if(marks[i]<=74 && marks[i]>=60)

printf("Grade B\n");

else if(marks[i]<=59 && marks[i]>=40)

printf("Grade C\n");

else if(marks[i]<=40)

printf("Grade D\n");

}

return 0;

}

Question 3

#include<stdio.h>

#include <math.h>

int main(){

int n;

printf("Enter the number of elements");

scanf("%d", &n);

int arr[n];

printf("Enter the element ");

for (int i = 0; i < n; i++) {

scanf("%d", &arr[i]);

}

int count=0;

for(int i=0;i<n;i++){

if(arr[i]==99){

count=count+1;

}

}

if(count!=0){

printf("99 is present");

}else{

printf("99 is not present");

}

return 0;

}

Question 4

#include <stdio.h>

#include <math.h>

int main(){

int n;

printf("Enter no. of students = ");

scanf("%d",&n);

int marks[n],i,count=0;

printf("Enter marks of n students = ");

for(i=0;i<n;i++)

scanf("%d",&marks[i]);

for(i=0;i<n;i++){

if(marks[i]==99){

printf("%dth Student scored %d marks in the class ",i+1,marks[i]);printf("\n");count++;

}

}printf("%d Students scored 99 in the class",count);

return 0;

}

Question 5

#include <stdio.h>

int main() {

int n, i, sum = 0;

printf("Enter the number of students: ");

scanf("%d", &n);

int marks[n];

printf("Enter the marks of %d students:\n", n);

for (i = 0; i < n; i++) {

scanf("%d", &marks[i]);

}

for (i = 0; i < n; i++) {

sum += marks[i];

}

printf("The total sum of marks is: %d\n", sum);

return 0;

}

Question 6

#include <stdio.h>

int main()

{

int sum=0,avg;

int marks[5]={67,75,86,69,92};

for(int i=0;i<5;i++)

{

sum+=marks[i];

}

avg=sum/5;

printf("AVG=%d",avg);

return 0;

}

Question 7

#include <stdio.h>

int main() {

int n, i;

printf("Enter the number of students: ");

scanf("%d", &n);

int marks[n];

printf("Enter the marks of %d students:\n", n);

for (i = 0; i < n; i++) {

scanf("%d", &marks[i]);

}

printf("Scores and their parity:\n");

for (i = 0; i < n; i++) {

if (marks[i] % 2 == 0) {

printf("Score %d: Even\n", marks[i]);

} else {

printf("Score %d: Odd\n", marks[i]);

}

}

return 0;

}

Question 8

#include <stdio.h>

int main() {

int i,n;

printf("Enter the no. of students whose marks to be entered = ");

scanf("%d",&n);

int marks[n];

printf("Enter marks for %d students = ",n);

for(i=0;i<n;i++){

scanf("%d",&marks[i]);

}

int max=marks[0];

int min=marks[0];

for(i=1;i<n;i++){

if(marks[i]>max){

max=marks[i];

}

if(marks[i]<min){

min=marks[i];

}

}

printf("Maximum marks scored is = %d",max);

printf("\nMinimum marks scored is = %d",min);

return 0;

}

Question 9

#include <stdio.h>

int main()

{

int marks[5]={67,75,86,69,92};

printf("Peak Elements are:\n");

if(marks[0]>=marks[1])

printf("%d\n",marks[0]);

if(marks[4]>=marks[3])

printf("%d\n",marks[4]);

for(int i=0;i<5;i++)

{

if(marks[i]>=marks[i-1] && marks[i]>=marks[i+1])

printf("%d\n",marks[i]);

}

return 0;

}

Question 10

#include <stdio.h>

int main() {

int n;

printf("Enter the number of elements");

scanf("%d", &n);

int arr[n];

printf("Enter the element ");

for (int i = 0; i < n; i++) {

scanf("%d", &arr[i]);

}

int fcount=0;

for (int i = 0; i <(n); i++) {

int count = 0;

if (arr[i] <= 1) {

continue;

}

for (int j = 2; j <= arr[i] / 2; j++) {

if (arr[i] % j == 0) {

count++;

break;

}

}

if (count == 0) {

fcount++;

}

}

printf("no of prime no in an array %d", fcount);

return 0;

}

Question 11

#include <stdio.h>

int main()

{ int p,n,x;

printf("Enter the number of Elements:\n");

scanf("%d",&n);

int a[n+1];

printf("Enter the Elements of the Array:\n");

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

{

printf("Element %d ",i+1);

scanf("%d",&a[i]);

}

printf("Enter the position at which new element has to be inserted and the value of element respectively:\n");

scanf("%d",&p);

scanf("%d",&x);

for(int i=n;i>=p-1;i--)

{

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

}

a[p-1]=x;

for(int i=0;i<n+1;i++)

{

printf("Element %d= %d\n",i+1,a[i]);

}

return 0;

}

Question 12

#include <stdio.h>

int main()

{ int p,n;

printf("Enter the number of Elements:\n");

scanf("%d",&n);

int a[n];

printf("Enter the Elements of the Array:\n");

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

{

printf("Element %d ",i+1);

scanf("%d",&a[i]);

}

printf("Enter the position at which a element has to be deleted:\n");

scanf("%d",&p);

for(int i=p-1;i<=n-1;i++)

{

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

};

for(int i=0;i<n-1;i++)

{

printf("Element %d= %d\n",i+1,a[i]);

}

return 0;

}

Question 13

#include <stdio.h>

int main() {

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

int n = sizeof(arr) / sizeof(arr[0]);

printf("Original array: ");

for (int i = 0; i < n; i++) {

printf("%d ", arr[i]);

}

printf("\n");

int last = arr[n - 1];

for (int i = n - 2; i >= 0; i--) {

arr[i + 1] = arr[i];

}

arr[0] = last;

printf("Array after rotation: ");

for (int i = 0; i < n; i++) {

printf("%d ", arr[i]);

}

printf("\n");

return 0;

}

Question 14

#include <stdio.h>

int main()

{int count=0;

int a[15]={67,69,86,69,92,45,34,62,86,56,72,92,35,66,45};

printf("the Duplicate Elements are:\n");

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

{

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

{

if(a[j]==a[i])

printf("%d,",a[j]);

}

}

return 0;

}