**Assignment -2**

**Ans 1. WAP to increase every student mark by 5 & then print the updated array.**

#include<stdio.h>

int main(){

    int arr[5];

    for(int i=0;i<=4;i++){

        printf("Enter students marks in all %d subject: ",i+1);

        scanf("%d",&arr[i]);

    }

    for(int i=0;i<=4;i++){

        arr[i]+= 5;

    }

    printf("Updated array is: ");

    for(int i=0;i<=4;i++){

    printf("%d ",arr[i]);

    }

    return 0;

}

Ans 2. WAP to print grade of students as per their marks given in an array. (>=75-- A grade, 74 to 60--B Grade, 59 to 40--C grade below 40--D grade)

#include<stdio.h>

int main(){

    int arr[5];

    for(int i=0;i<=4;i++){

        printf("Enter marks in subject %d of a student:" i+1);

        scanf("%d",&arr[i]);

    }

    for(int i=0;i<=4;i++){

        if (arr[i]>=75)

        printf("A grade ");

        else if(arr[i]<=75 && arr[i]>=60)

        printf("B grade ");

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

        printf("C grade ");

        else if(arr[i]<=40)

        printf("D grade ");

        else

        printf("Invalid marks ");

    }

}

**Ans 3. WAP to find who scored first “99” in an array marks**

#include<stdio.h>

int main(){

    int arr[5];

    for(int i=0; i<=4;i++){

        printf("Enter marks of %d student in one subject: ",i+1);

        scanf("%d",&arr[i]);

    }

    for(int i=0; i<=4;i++){

        if(arr[i]==99){

        printf("student %d got 99 marks first.",i+1);

        return arr[i];

        }

    }

}

**Ans 4. WAP to find Who & how many students have scored 99 in an array Marks**

#include<stdio.h>

int main(){

    int arr[5],count=0;

    for(int i=0; i<=4;i++){

        printf("Enter marks of %d student in one subject: ",i+1);

        scanf("%d",&arr[i]);

    }

    for(int i=0; i<=4;i++){

        if(arr[i]==99){

        printf("\nstudent %d got 99 marks ",i+1);

        count+=1;

        //return arr[i];

        }

    }

    printf("\nTotal number of students who got 99 marks are: %d",count);

    return 0;

}

**Ans 5. WAP to find sum of all scores in Marks array**

#include<stdio.h>

int main(){

    int Marks[5];

    int sum=0;

    for(int i=0;i<=4;i++){

        printf("Enter sore %d: ",i+1);

        scanf("%d",&Marks[i]);

    }

    for(int i=0;i<=4;i++){

        sum +=Marks[i];

    }

    printf("\nsum of the scores: %d: ",sum);

    return 0;

}

**Ans 6. WAP to find average score of the Marks array**

#include<stdio.h>

int main(){

    int Marks[5];

    int sum=0;

    float avg=0;

    for(int i=0;i<=4;i++){

        printf("Enter score: %d",i+1);

        scanf("%d",&Marks[i]);

    }

    for(int i=0;i<=4;i++){

        sum += Marks[i];

    }

    avg= sum/5;

    printf("Average of the given scores is: %f",avg);

    return 0;

}

**Ans 7. WAP to check whether score is even or odd in an array**

#include<stdio.h>

int main(){

    int arr[5];

    for(int i=0;i<=4;i++){

        printf("Enter score %d : ",i+1);

        scanf("%d",&arr[i]);

    }

    for(int i=0;i<=4;i++){

        if(arr[i]%2==0)

        printf("%d is an odd score\n",arr[i]);

        else

        printf("%d is an even score\n",arr[i]);

    }

    return 0;

}

**Ans 8. WAP to find maximum & minimum score in the Marks array**

#include<stdio.h>

int main(){

    int Marks[5];

    //int max= -1,min=-1;

    for(int i=0;i<=4;i++){

        printf("Enter score %d ",i+1);

        scanf("%d",&Marks[i]);

    }

    int max=Marks[0],min=Marks[0];

    for(int i=0;i<=4;i++){

        if (Marks[i]>max)

            max=Marks[i];

        if (Marks[i]<min )

            min=Marks[i];

    }

    printf("Maximum score is: %d\n",max);

    printf("Minimum score is: %d",min);

    return 0;

}

**Ans 9. WAP to find a peak element which is not smaller than its neighbors**

#include<stdio.h>

int main(){

    int arr[5];

    for(int i=0;i<=4;i++){

        printf("Enter score %d ",i+1);

        scanf("%d",&arr[i]);

    }

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

    int peakindex = -1;

    if (n == 1) {

        peakindex = 0;

    } else if (arr[0] >= arr[1]) {

        peakindex = 0;

    } else if (arr[n - 1] >= arr[n - 2]) {

        peakindex = n - 1;

    } else {

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

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

                peakindex = i;

                break;

            }

        }

    }

     if (peakindex != -1)

        printf("Peak element is %d at index %d\n", arr[peakindex], peakindex);

    else

        printf("No peak element found\n");

    return 0;

    return 0;

}

**Ans 10. WAP to count prime numbers in an array**

#include <stdio.h>

int main() {

    int arr[5],count=0;

    for (int i = 0; i < 5; i++) {

        printf("Enter element %d of array of 5 elements: ", i + 1);

        scanf("%d", &arr[i]);

    }

    for (int i = 0; i < 5; i++) {

        int num = arr[i];

        if (num > 1)

        {

            int div = 0;

            for (int j = 2; j \* j <= num; j++) {

                if (num % j == 0) {

                    div = 1;

                    break;

                }

            }

            if (!div)

                count++;

        }

    }

    printf("Number of prime numbers in the array: %d\n", count);

    return 0;

}