Q1. 1. Passing array as an argument to a function-Imagine you have a function that calculates the average of a collection of numbers. How would you design the function to accept the collection of numbers as input, and returns average as output?

#include <stdio.h>

int main()

{

int size, i, sum = 0;

float average = 0;

printf("Please Enter the Array size = ");

scanf("%d", &size);

int arr[size];

printf("Enter the Array Elements : ");

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

{

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

}

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

{

sum = sum + arr[i];

}

average = (float)sum / size;

printf("\nThe Sum of Array Elements = %d\n", sum);

printf("\nThe Average of Array Elements = %.2f\n", average);

}

2. 2. Django multiplex is developing application for its cafeteria. The application should be able to calculate the bill details for the following scenario. You bought pizzas, puffs and cool drinks.

Consider the following prices:

Rs.200/pizza

Rs40/puffs

Rs.120/pepsi

Generate a bill.

The bill details must include the total cost Of pizzas, total cost of puffs and total cost of pepsi. Imagine that the inputs are number of pizza bought is 5, number of puffs is 6 and number of cool drinks is 2. Calculate and display the grand total.

#include <stdio.h>

int main()

{

int pizzaPrice = 200;

int puffPrice = 40;

int coolDrinkPrice = 120;

int pizzas = 5;

int puffs = 6;

int coolDrinks = 2;

int totalPizzaCost = pizzas \* pizzaPrice;

int totalPuffCost = puffs \* puffPrice;

int totalCoolDrinkCost = coolDrinks \* coolDrinkPrice;

int grandTotal = totalPizzaCost + totalPuffCost + totalCoolDrinkCost;

printf("Pizza %d %d %d\n", pizzas, pizzaPrice, totalPizzaCost);

printf("Puffs %d %d %d\n", puffs, puffPrice, totalPuffCost);

printf("Cool Drinks %d %d %d\n", coolDrinks, coolDrinkPrice, totalCoolDrinkCost);

printf("Grand Total: Rs. %d\n", grandTotal);

return 0;

}

4. Generate the following pattern

1

12

123

1234

#include<stdio.h>

int main()

{

int rows=4,i,j;

for(i=1;i<=rows;i++)

{

for(j=1;j<=i;j++)

{

printf("\*");

}

printf("\n");

}

return 0;

}

5. Implement a user defined function to handle Age eligibility to vote

#include<stdio.h>

int main()

{

int age;

printf("Enter the age");

scanf("%d",&age);

if(age>=18)

{

printf("Eligibility to vote");

}

else

{

printf("Not eligible tpo vote");

}

return 0;

}

6. Find the sum of even numbers in an integer array

#include<stdio.h>

int main()

{

int a[10],i,sum=0;

printf("Enter the 5 Values: ");

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

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

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

{

if(a[i]%2==0)

sum=sum+a[i];

}

printf("Total Sum of Even values is: %d ",sum);

return 0;

}