**Quiz**

**Question 1**

**Write a program to calculate factorial of a given number.**

import "dart:io"

void main()

{

int x = 1, factNum = 5;

if(factNum == 0)

{

print(1);

}

else

{

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

{

x = x\*(factNum);

factNum--;

}

print(x);

}

}

**Question 2**

**Write a program to make such a pattern like a pyramid with a number**

**which will repeat the number in the same row.**

**1.**

**2 2**

**3 3 3**

**4 4 4 4**

import "dart:io"

void main()

{

for(int i = 0 ; i< 4; i++)

{

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

{

stdout.write(i);

}

stdout.writeln();

}

}

**Question 3**

**Write a program to find out the sum of series.**

**Test Data:**

**The Sum of series is:**

**1 + 5 + 9 + 13 + 17 + 21 + 25 + 29 + 33 + 37 = 190**

void main() {

num sum = 0;

List a = [1, 5, 9, 13, 17, 21, 25, 29, 33, 37];

for (var i = 0; i < a.length; i++) {

sum = sum + a[i];

}

print("Sum : $sum");

}

**Question 4**

**Write a program to find majority element of an array.**

**The given array is: 1 3 3 7 4 3 2 3 3**

void main(){

var list = [1, 3, 3, 7, 4, 3, 2, 3, 3];

var popular = Map();

var freqVal = [];

list.forEach((l) {

if(!popular.containsKey(l)) {

popular[l] = 1;

} else {

popular[l] +=1;

}

});

List finalList = popular.values.toList()..sort();

popular.forEach((k, v) {

if (v == popular) {

freqVal.add;

}

print("$k occurs $v time in the list");

});

}

**Question 5**

**Write a program to find the minimum distance between two numbers in a given array**

**The given array is: 7 9 5 11 7 4 12 6 2 11**

**Question 6**

**Write a program to check whether a character is an alphabet, digit or Special character.**

import ‘package:string\_validator/string\_validator.dart’;

void main() {

var a = 4;

if (isAlpha(a) == true) {

print(‘$a is an alphabet’);

} else if (isNumeric(a) == true) {

print(‘$a is a number’);

else print (‘$a is a special character’);

}

}