**Worksheet 05**

**CTEC 22043**

**Object Oriented Programming**

**Student No: CT/2021/002**



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**Q-01:**

**Code:**

package Q\_01;

public class Q\_01 {

public static void main(String[] args) {

for(int i = 10; i <= 49; i++){

System.out.print(i+" ");

if((i+1) % 10 == 0)

System.out.println();

}

}

}

**Output:**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**Q-02:**

**Code:**

package Q\_02;

import java.util.Scanner;

public class Q\_02 {

public static int digitCount(int count) {

return String.valueOf(Math.abs(count)).length();

}

public static void main(String[] args) {

int num;

Scanner scan = new Scanner(System.in);

do{

System.out.print("\nEnter an integer: ");

num = scan.nextInt();

if(num >= 0)

System.out.println("Number of Digits: "+digitCount(num));

} while(num >= 0);

}

}

**Output:**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**Q-03:**

**Code:**

package Q\_03;

import java.util.Scanner;

public class Q\_03 {

public static void main(String[] args) {

int n;

Scanner scan = new Scanner(System.in);

System.out.print("Enter a number: ");

n = scan.nextInt();

System.out.println("\nMultiplication Table of "+n);

for(int i=1; i < 11; i++){

System.out.println("\t"+n+" \* "+i+" = "+(n\*i));

}

}

}

**Output:**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**Q-04:**

**Code:**

package Q\_04;

import java.util.Scanner;

public class Q\_04 {

public static void main(String[] args) {

int row;

Scanner scan = new Scanner(System.in);

System.out.print("Enter the number of rows for the pattern: ");

row = scan.nextInt();

//loop through each row

for(int i = 1; i <= row; i++){

//printing the spaces on beginning of each line

for(int j = i; j < row; j++){

System.out.print(" ");

}

//printing the necessary amount of asterisks

for(int k = 1; k <= (2\*i-1); k++){

System.out.print("\*");

}

//move to next line after print each line

System.out.println();

}

}

}

**Output:**

**A screen shot of a computer

AI-generated content may be incorrect.**

**Q-05:**

**Code:**

package Q\_05;

import java.util.Scanner;

public class Q\_05 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a word or phrase(Enter all characters in lowercase): ");

String input = scanner.nextLine();

String reversed = new StringBuilder(input).reverse().toString();

if (input.equals(reversed)) {

System.out.println("It's a palindrome..");

} else {

System.out.println("Not a palindrome..");

}

scanner.close();

}

}

**Output:**

**A screen shot of a computer

AI-generated content may be incorrect.**

**A screen shot of a computer

AI-generated content may be incorrect.**

**A black screen with white text

AI-generated content may be incorrect.**

**A screen shot of a computer

AI-generated content may be incorrect.**

**Q-06:**

**Code:**

package Q\_06;

import java.util.Random;

import java.util.Scanner;

public class Q\_06 {

public static void main(String[] args) {

int random,guess;

Random r = new Random();

random = r.nextInt(100);

do{

System.out.print("\nGuess a number between 0 and 100: ");

Scanner scan = new Scanner(System.in);

guess = scan.nextInt();

if(guess > random){

System.out.println("Your guess is Higher, Guess again!");

} else if (guess < random){

System.out.println("Your guess is Lower, Guess again!");

} else{

System.out.println("Your guess is Correct!!");

}

} while(guess != random);

System.out.println("\nThe random number was: "+random);

}

}

**Output:**

**A screenshot of a game

AI-generated content may be incorrect.**

**Q-07:**

**Code:**

package Q\_07;

import java.util.Scanner;

public class Q\_07 {

public static void main(String[] args) {

Scanner scan = new Scanner(System.in);

System.out.print("Enter a sentence: ");

String sentence = scan.nextLine();

System.out.print("Enter word to replace: ");

String oldWord = scan.nextLine();

System.out.print("Enter new replacement word: ");

String newWord = scan.nextLine();

String replaced = sentence.replace(oldWord, newWord);

System.out.println("New sentence: " + replaced);

}

}

**Output:**

A computer screen shot of a code

AI-generated content may be incorrect.