**Java Assignment 01**

1. **Logical Coding Question:**

**Que 01 –**

**Draw below pattern-**

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\* \*

\*\*\*\*\*\*\*\*\*

**Ans🡪**1)

import java.lang.\*;

import java.util.\*;

class p1{

public static void main(String args[]){

int i;

int j;

for(i = 1; i <= 5; i++){

for(j = i; j <= 5; j++){

System.out.print(" ");

}

for(j = 1; j <= 9; j++){

if( j == i || i == 5 || j == 1 ){

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

}

else{

System.out.print(" ");

}

}

System.out.println();

}

}

}

**Que 02 –**

**Draw below pattern-**

\* \* \* \* \* \* \* \* \*

\* \*

\* \*

\* \*

\*

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class p2{

public static void main(String args[]){

for(int i = 1; i <= 5; i++){

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

System.out.print(" ");

}

for(int j = 1; j <= 9; j++){

if(i == 1 || j == 1 || i+j == 6){

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

}

else{

System.out.print(" ");

}

}

System.out.println();

}

}

}

**Que 03 –**

**Draw below pattern-**

**Ans🡪**

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

class Pattern3

{

public static void main(String args [])

{

int n = 1;

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

{

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

{

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

n++;

}

System.out.println();

}

}

}

**Que 04 –**

**Draw below pattern-**

1

1 1

1 2 1

1 3 3 1

1 4 6 4 1

**Ans🡪**

class Pattern4

{

public static void main(String args[])

{

int num;

int x=5;

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

{

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

{

System.out.print(" ");

}

num=1;

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

{

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

num = num\*(i-j)/(j+1);

}

x--;

System.out.println();

}

**Que 05 –**

**Draw below pattern-**

1

212

32123

4321234

32123

212

1

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class p5{

public static void main(String args[]){

for(int i = 1; i < 4; i++){

for(int j = i; j <= 4; j++){

System.out.print(" ");

}

for(int j = i; j > 1; j--){

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

}

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

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

}

System.out.println();

}

int x = 5;

for(int i = 1; i <= 4; i++){

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

System.out.print(" ");

}

x--;

for(int j = x; j > 1; j--){

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

}

for(int j = 1; j <= x; j++){

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

}

System.out.println();

}

}

}

**Que 06 –**

**Draw below pattern-**

1

2 1

3 2 1

4 3 2 1

5 4 3 2 1

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class p6{

public static void main(String args[]){

for(int i = 1; i <= 5; i++){

for(int j = i; j >= 1; j--){

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

}

System.out.println();

}

}

}

**Que 07 –**

**Draw below pattern-**

**Ans🡪**

**Que 08 –**

**Draw below pattern-**

**Ans🡪**

**Que 09 –**

**Draw below pattern-**

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

4 5

3 4 5

2 3 4 5

1 2 3 4 5

**Ans🡪**

import java.util.Scanner;

public class Pattern\_Question\_09

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

//Taking rows value from the user

System.out.println("How many rows you want in this pattern?");

int rows = sc.nextInt();

System.out.println("Here is your pattern....!!!");

//Printing upper half of the pattern

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

{

//Printing i spaces at the beginning of each row

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

{

System.out.print(" ");

}

//Printing i to rows value at the end of each row

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

{

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

}

System.out.println();

}

//Printing lower half of the pattern

for (int i = rows-1; i >= 1; i--)

{

//Printing i spaces at the beginning of each row

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

{

System.out.print(" ");

}

//Printing i to rows value at the end of each row

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

{

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

}

System.out.println();

}

//Closing the resources

sc.close();

}

}

/\*

**OUTPUT -**

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>java Pattern\_Question\_09

How many rows you want in this pattern?

5

Here is your pattern....!!!

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

4 5

3 4 5

2 3 4 5

1 2 3 4 5

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>

\*/

**Que 10)**

**Draw Pattern**

A

B B

C C C

D D D D

E E E E E

F F F F F F

Ans🡪

/\*

Java Assignment 1

Logical Coding Question: 8

\*/

class Pattern\_Question\_10{

public static void main(String[]args)

{

int c,r;

c=0;

r=6;

char ch='A';

//Outer Loop

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

{

// ch='A'

// Inner Loop

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

{

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

}

ch++;

System.out.println();

}

System.out.println("Program Finished.");

}

}

**/\***

**OUTPUT-**

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>java Pattern\_Question\_10

A

B B

C C C

D D D D

E E E E E

F F F F F F

Program Finished.

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>

\*/

**Que 11 –**

**Draw below pattern-**

**Ans🡪**

11)

A B C D E F

A B C D E

A B C D

A B C

A B

A

A

A B

A B C

A B C D

A B C D E

import java.util.\*;

public class Pattern11

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

//Taking rows value from the user

System.out.println("How many rows you want in this pattern?");

int rows = sc.nextInt();

System.out.println("Here is your pattern....!!!");

int alphabet = 65; // ASCII value of alphabet 'A'

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

{

for (int j=rows-1; j>i; j--)

{

System.out.print(" ");

}

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

{

System.out.print((char) (alphabet+k) + " ");

}

System.out.println();

}

//Close the resources

sc.close();

}

}

**Que 12 –**

**Draw below pattern-**

**Ans🡪**

12)

A

A B

A B C

A B C D

A B C D E

A B C D E F

import java.util.\*;

public class Pattern12

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

//Taking rows value from the user

System.out.println("How many rows you want in this pattern?");

int rows = sc.nextInt();

System.out.println("Here is your pattern....!!!");

int alphabet = 65; // ASCII value of alphabet 'A'

for (int i= rows-1; i>= 0; i--)

{

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

{

System.out.print((char) (alphabet + j)+ " ");

}

System.out.println("");

}

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

{

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

{

System.out.print((char) (alphabet + j)+ " ");

}

System.out.println("");

}

//Close the resources

sc.close();

}

}

**Que 13 –**

**Draw below pattern-**

A

B B

C C

D D

E E

F F

E E

D D

C C

B B

A

import java.lang.\*;

import java.util.\*;

class p13{

public static void main(String args[]){

int alpha = 65;

for(int i = 1; i < 6; i++){

for(int j = i; j <= 6; j++){

System.out.print(" ");

}

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

if(j == i || j == 1){

System.out.print((char)alpha+" ");

}

else{

System.out.print(" ");

}

}

alpha++;

System.out.println();

}

int bet = 70;

for(int i = 1; i <= 6; i++){

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

System.out.print(" ");

}

for(int j = i; j <= 6; j++){

if( j == i || j == 6 ){

System.out.print((char)bet+" ");

}

else{

System.out.print(" ");

}

}

bet--;

System.out.println();

}

}

}

**Ans🡪**

**Que 14 –**

**Draw below pattern-**

**Ans🡪**

**Que 15 –**

**Draw below pattern-**

**1 2 3 4 5 6**

**2 3 4 5 6**

**3 4 5 6**

**4 5 6**

**5 6**

**6**

**Ans🡪**

public class pattern15

{

public static void main(String[] args)

{

int rows = 6;

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

{

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

{

System.out.print(" ");

}

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

{

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

}

System.out.println();

}

}

}

//Output

/\*1 2 3 4 5 6

2 3 4 5 6

3 4 5 6

4 5 6

5 6

6

**Que 16 –**

**Draw below pattern-**

**Printing Christmas Tree**

**Using Pyramid**

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**\* \* \***

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**\* \* \***

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**Ans🡪**

class pattern16

{

public static final int height = 5;

public static void main(String[] args)

{

int width = 5;

int space = width\*5;

int x = 1;

for(int a = 1;a<=height ;a++)

{

for(int i=x;i<=width;i++)

{

for(int j=space;j>=i;j--)

{

System.out.print(" ");

}

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

{

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

}

System.out.println();

}

x = x+2;

width = width+2;

}

for(int i = 1;i <= 4;i++)

{

for(int j= space-3;j <= 1;j--)

{

System.out.println(" ");

}

for(int k = 1;k <= 4;k++)

{

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

}

System.out.println();

}

}

}

**Que 17 –**

**Draw below pattern-**

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

\* \* \* \* \* \*

\* \* \* \* \*

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\* \* \*

\* \*

\*

**Ans🡪**

class Pattern\_Question\_17{

public static void main(String[]args)

{

int c,r;

c=0;

r=6;

char ch='\*';

//Outer Loop

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

{

// ch='A'

// Inner Loop

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

{

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

}

System.out.println();

}

for (int i=r-1; i>0;i--)

{

for(int j=i;j>=1;j--)

{

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

}

System.out.println();

}

System.out.println("Program Finished.");

}

}

/\*

OUTPUT-

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>java Pattern\_Question\_17

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\* \* \* \* \* \*

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\* \* \* \*

\* \* \*

\* \*

\*

Program Finished.

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>

\*/

**Que 18 –**

**Draw below pattern-**

**Ans🡪**

**/\***

**Java Assignment 1**

**Logical Coding Question: 18**

**\*/**

**class Pattern\_Question\_18{**

**public static void main(String[]args)**

**{**

**int c,r;**

**c=0;**

**r=7;**

**for (int i=1; i<=r;i++)**

**{**

**for(int j=r;j>=i;j--)**

**{**

**System.out.print(j+" ");**

**// else**

**// System.out.print("0 ");**

**}**

**System.out.println();**

**}**

**System.out.println("Program Finished.");**

**}**

**}**

**/\***

**OUTPUT-**

**F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>java Pattern\_Question\_18**

**7 6 5 4 3 2 1**

**7 6 5 4 3 2**

**7 6 5 4 3**

**7 6 5 4**

**7 6 5**

**7 6**

**7**

**Program Finished.**

**F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>**

**\*/**

**Que 19 –**

**Draw below pattern-**

**Ans🡪**

19)

1

1 2 1

1 2 3 2 1

1 2 3 4 3 2 1

1 2 3 4 5 4 3 2 1

1 2 3 4 5 6 5 4 3 2 1

1 2 3 4 5 6 7 6 5 4 3 2 1

Solution=

import java.lang.\*;

import java.util.\*;

class p19{

public static void main(String args[]){

for(int i = 1; i <= 7; i++){

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

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

}

for(int j = i; j >= 1; j--){

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

}

System.out.println();

}

}

}

**Que 20 –**

**Draw below pattern-**

**Ans🡪**

20)

1234567

234567

34567

4567

567

67

7

67

567

4567

34567

234567

1234567

Solution=

import java.lang.\*;

import java.util.\*;

class p20{

public static void main(String args[]){

for(int i = 1; i < 7; i++){

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

System.out.print(" ");

}

for(int j = i; j <= 7; j++){

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

}

System.out.println();

}

int x = 7;

for(int i = 1; i <= 7; i++){

for(int j = i; j <= 7; j++){

System.out.print(" ");

}

for(int j = x; j <= 7; j++){

System.out.print(j+" ");ss

}

x--;

System.out.println();

}

}

}

**Que 21 –**

**Draw below pattern-**

**Ans🡪**

21)

1

10

101

1010

10101

101010

1010101

import java.lang.\*;

import java.util.\*;

class p21{

public static void main(String args[]){

for(int i = 1; i <= 7; i++){

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

if(j == 2 || j == 4 || j == 6){

System.out.print("0 ");

}

else{

System.out.print("1 ");

}

}

System.out.println();

}

}

}

**Que 22 –**

**Draw below pattern-**

1111111

1111122

1111333

1114444

1155555

1666666

7777777

**Ans🡪**

class Pattern22

{

public static void main(String args [])

{

int num;

for(int i=1;i<=7;i++)

{

num=1;

for(int j=6;j>=i;j--)

{

System.out.print(num);

}

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

{

System.out.print(i);

}

System.out.println();

}

}

}

**Que 23 –**

**Draw below pattern-**

1010101

0101010

1010101

0101010

1010101

0101010

1010101

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class p23{

public static void main(String args[]){

for(int i = 1; i <= 7; i++){

if(i % 2 != 0){

for(int j = 1; j <= 7; j++){

if(j % 2 != 0){

System.out.print("1 ");

}

else{

System.out.print("0 ");

}

}

}

else{

for(int j = 1; j <= 7; j++){

if(j % 2 != 0){

System.out.print("0 ");

}

else{

System.out.print("1 ");

}

}

}

System.out.println();

}

}

}

**Que 24 –**

**Draw below pattern-**

1 2 3 4 5 6 7

2 3 4 5 6 7 1

3 4 5 6 7 1 2

4 5 6 7 1 2 3

5 6 7 1 2 3 4

6 7 1 2 3 4 5

7 1 2 3 4 5 6

**Ans🡪**

class Pattern\_Question\_25{

public static void main(String[]args)

{

int c,r;

c=0;

r=7;

// Outer Loop

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

{

// Inner Loop -First Triangle

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

{

System.out.print(j+" "); //it prints number from ith to 7

}

// Inner Loop -Second Triangle

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

{

System.out.print(k+" "); //it prints number from 1 to (i-1)th

}

System.out.println();

}

System.out.println("Program Finished.");

}

}

/\*

**OUTPUT-**

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>java Pattern\_Question\_25

1 2 3 4 5 6 7

2 3 4 5 6 7 1

3 4 5 6 7 1 2

4 5 6 7 1 2 3

5 6 7 1 2 3 4

6 7 1 2 3 4 5

7 1 2 3 4 5 6

Program Finished.

F:\CDAC\CDAC\_Lab\Diwali Homework\Pattern Assignment>

\*/