TUGAS PRAKTIKUM

ALGORITMA DAN PEMOGRAMAN

“PERULANGAN FOR”

disusun Oleh:

NIDA TSABITA ARIBA

2511532025

Dosen Pengampu:

Dr. WAHYUDI, S.T, M.T

Asisten Praktikum:

AUFAN TAUFIQURRAHMAN

FAKULTAS TEKNOLOGI INFORMASI

DEPARTEMEN INFORMATIKA

UNIVERSITAS ANDALAS

2025

A. Soal

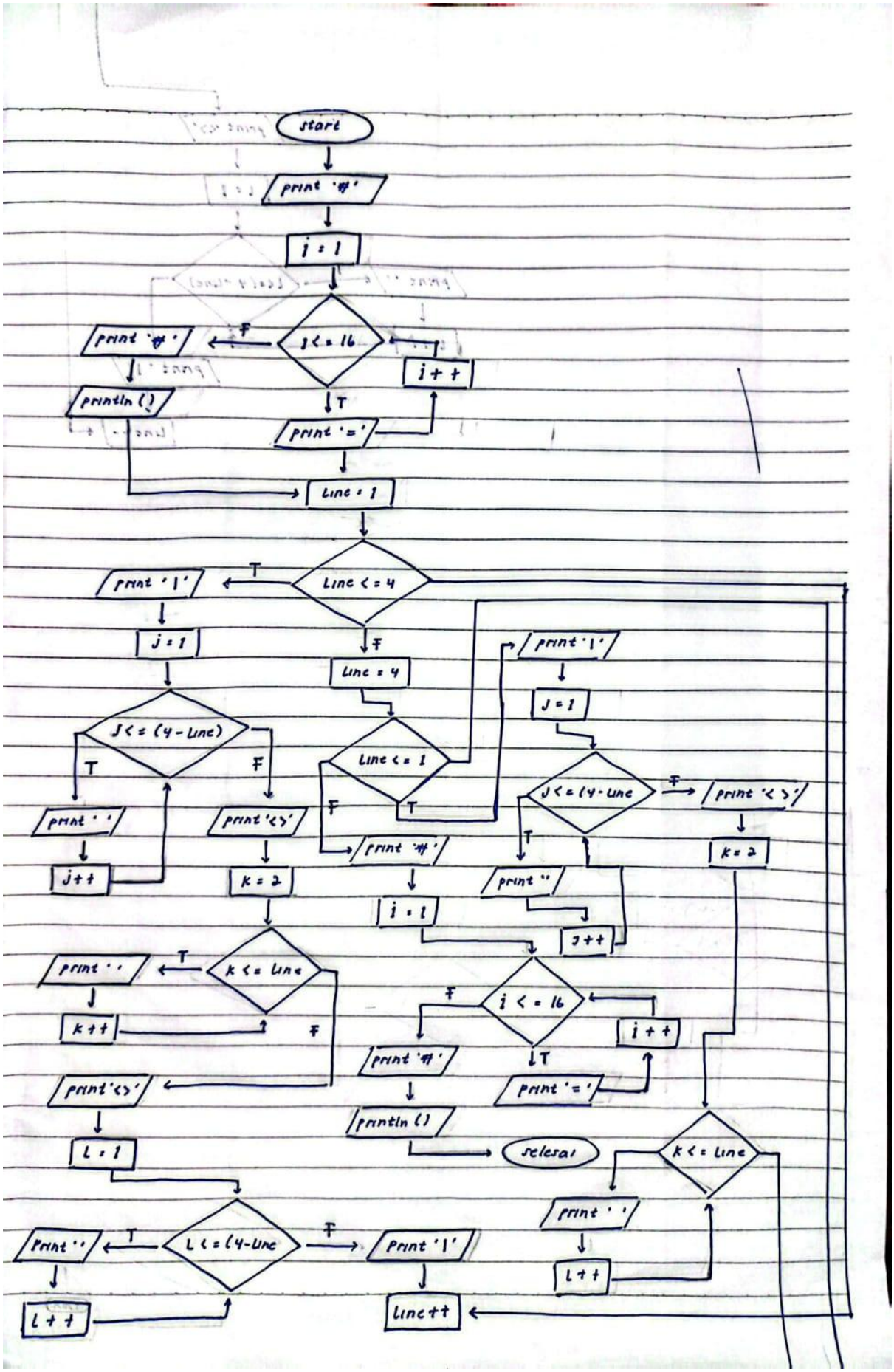
Membuat kode program dengan hasil output

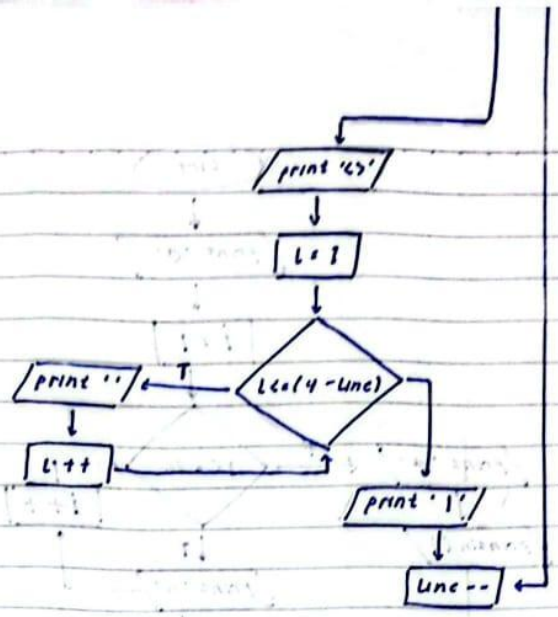
B. Pseudoscode

Judul Program CetakPolaBerlianBerbingkai { Program ini berfungsi untuk mencetak pola berlian (ketupat) yang diapit oleh batas atas dan bawah. Seluruh output terdiri dari 10 baris.}
Deklarasi Variabel i, line, j, k, l : Integer
Pseudocode 1. Start 2. Print "#" 3. For i From 1 To 16 Do Print "=" 4. End_For 5. Print "#" 6. Print Newline 7. For line From 1 To 4 Do 8. Print "|" 9. For j From 1 To (4 - line) Do Print " " 10. End_For 11. Print"<>" 12. For k From 2 To line Do Print "...."

```
13. End_For
14. Print "<>"
15. For l From 1 To (4 - line) Do
        Print " "
16. End_For
17. Print "|"
18. Print Newline
19. End_For
20. For line From 4 Down To 1 Do
21. Print "|"
22. For j From 1 To (4 - line) Do
        Print " "
23. End_For
24. Print "<>"
25. For k From 2 To line Do
    Print "...."
26. End_For
27. Print "<>"
28. For l From 1 To (4 - line) Do
        Print " "
29. End_For
30. Print "|"
31. Print Newline
32. End_For
33. Print "#"
34. For i From 1 To 16 Do
        Print "="
35. End_For
36. Print "#"
37. Print Newline
38. End
```

C. Flowchart


start
print '#'
i = 1
i <= 16
T
F
print '='
i++
println ()
print '#'
Line = 1
Line <= 4
T
print '|'
j = 1
F
Line = 4
J <= (4 - Line)
T
F
print ' '
j++
print '<'
k = 2
k <= Line
T
print ' '
k++
F
print '<'
L = 1
L <= (4-Line
T
Print ' '
L++
F
Print '|'
Linc++
Line <= 1
T
F
print '#'
i = 1
i <= 16
T
F
print '='
i++
println ()
selesai
print '|'
J = 1
J <= (4 - Line
T
F
print ' '
J++
print '<'
k = 2
k <= Line
T
print ' '
L++


print '<5>'
l = 1
l <= (4 - line)
T
print ' '
l ++
print '*'
line --

D. Source Code

```java
package pekan5_2511532025;

public class TugasFor_2511532025 {

public static void main(String[] args) {

        System.out.print("#");
        for (int i = 1; i <= 16; i++) {
            System.out.print("=");
        }
        System.out.print("#");
        System.out.println();

        for (int line = 1; line <= 4; line++) {
            System.out.print("|");
            for (int j = 1; j <= (4 - line); j++) {
                System.out.print("  ");
            }
            System.out.print("<>");
            for (int k = 2; k <= line; k++) {
                System.out.print("....");
            }
            System.out.print("<>");
            for (int l = 1; l <= (4 - line); l++) {
                System.out.print("  ");
            }
            System.out.print("|");
            System.out.println();
        }

        for (int line = 4; line >= 1; line--) {
            System.out.print("|");
            for (int j = 1; j <= (4 - line); j++) {
                System.out.print("  ");
            }
            System.out.print("<>");
            for (int k = 2; k <= line; k++) {
                System.out.print("....");
            }
            System.out.print("<>");
            for (int l = 1; l <= (4 - line); l++) {
                System.out.print("  ");
            }
            System.out.print("|");
            System.out.println();
        }

        System.out.print("#");
        for (int i = 1; i <= 16; i++) {
            System.out.print("=");
        }
        System.out.print("#");
        System.out.println();
    }
}
```

E. Output