Qa 1 - Implement a class Person with fields name and age. Add a method to return a greeting message using the person's name.

Q2- Use pattern matching for instanceof to write a method that accepts an Object and prints a different message based on whether the object is a String, Integer, or something else.

Q3-Write a switch expression to determine the type of a Shape object (Circle, Square, or Rectangle) and return its area.

Q4 - Write a method using a RandomGenerator to generate and print five random integers between 1 and 100.

Q5 – Write a method that uses pattern matching for instanceof to safely cast and process a List of Objects that may contain instances of String, Integer, and other types.

Q 6 what is the output here

public class Main {

public static void main(String[] args) {

String text = """

Java SE 17

is awesome!

""";

System.out.println(text);

}

}

Q 7 what is the output here

public class Main {

public static void main(String[] args) {

int a = 5;

int b = 3;

int result = a < b ? a + b : a - b;

System.out.println(result);

}

}

Q 8 what is the output here

public class Main {

public static void main(String[] args) {

Random random = new Random();

int number = random.nextInt(10) + 1;

System.out.println(number);

}

}

Q 9 what is the value of xxx

public class Main {

public static void main(String[] args) {

int[] numbers = {1, 2, 3, 4, 5};

int xxx = 0;

for (int number : numbers) {

if (number % 2 == 0) {

xxx += number;

}

}

System.out.println(xxx);

}

}

Q 10 what is the value of count

public class Main {

public static void main(String[] args) {

int count = 0;

while (count < 5) {

count++;

}

System.out.println("Count: " + count);

}

}

Q 11 – what is the value of count

public static void main(String[] args) {

int count = 0;

do {

count++;

} while (count <= 8);

System.out.println("Count: " + count);

}

Q 12 – what is the output

public class Main {

public static void main(String[] args) {

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

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

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

}

System.out.println();

}

}

}

Q 13 –

public class Main {

public static void main(String[] args) {

int number = 7;

switch (number) {

case 1 -> System.out.println("One");

case 2 -> System.out.println("Two");

case 3 -> System.out.println("Three");

case 4 -> System.out.println("Four");

case 5 -> System.out.println("Five");

}

}

}

Q 14

public class Main {

public static void main(String[] args) {

int[] numbers = {2, 4, 6, 8, 10};

int i = 0;

int sum = 0;

while (i < numbers.length) {

sum += numbers[i];

i++;

}

System.out.println("Sum: " + sum);

}

}

Q 15 – what is the missing part to let the code works correctly

public class Main {

public static void main(String[] args) {

NumberProcessor processor = new NumberProcessor();

int[] numbers = {1, 2, 3, 4, 5,6,10,15,17,19,25};

System.out.println("Sum of even numbers: " + processor.sumEvenNumbers(numbers));

}

}

class NumberProcessor {

public int sumEvenNumbers(int[] numbers) {

int sum = 0;

for (int number : numbers) {

if (number % 2 == 0) {

}

}

return sum;

}

}

Q 16 – what is the missing part

public class Main {

public static void main(String[] args) {

Counter counter = new Counter();

System.out.println("Count: " + counter.incrementUntil(5));

}

}

class Counter {

public int incrementUntil(int limit) {

int count = 0;

do {

count++;

} while ();

return count;

}

}

Q 17 –

Write a program that calculate the number of characters of one word

And print the number of characters