✓ Did you read the directions. If not, please do it. Por favor, lea las indicaciones antes de empezar su examen. Please make sure that your computer is plugged in and your Internet is OK Por favor asegúrese de tener electricidad conectada a su computadora. Y el Internet en buen estado.   *1/1

- ⦿ Yes   ✓
- ◯ No

OOP Fundamentals (10 minutes)   **9 de 10 puntos**

✓ 1. It is used to model the structure of objects in the system *   1/1

- ⦿ Class Diagrams   ✓
- ◯ Use Case Diagrams
- ◯ Flowcharts

✓ 2. Hiding of design decisions inside software appropriate components *   1/1

- ⦿ Encapsulation   ✓
- ◯ Abstraction
- ◯ Inheritance

✓ 3. An object includes another object as subpart of it *   1/1

- ⦿ Aggregation   ✓
- ◯ Dependency
- ◯ sub-object

✓ 4. Leave unnecessary definitions out of the system implementation *   1/1

- ⦿ Abstraction   ✓
- ○ Encapsulation
- ○ Objects

✓ 5. A class is composed of *   1/1

- ○ Attributes and variables
- ⦿ attributes and methods   ✓
- ○ functions and methods

✗ 6. Inheritance in Object Orientation is also known as *   0/1

- ○ Generalization/Specialization
- ⦿ Classification   ✗
- ○ Abstraction

Respuesta correcta

- ⦿ Generalization/Specialization

✓ 7. Reviews of software artifacts are of two types *   1/1

- ○ Unit tests and Desk checks
- ○ Inspections and unit tests
- ⦿ Inspections and Walkthroughs   ✓

✓ 8. Encapsulation is implemented the keyword *   1/1

○ public

○ void

◉ private ✓

✓ 9. Aggregation, composition and association in a class diagram are relationships between classes that are implemented in code using   *1/1

◉ attributes ✓

○ methods

○ packages

✓ 10. Dependency in a class diagram, is a relationship between classes that are implemented in   *1/1

○ variables

○ classes

◉ methods ✓

11. Match each of the following Git commands to its purpose *

	clone	add	commit	push	pull	Puntuación	
Put one or more new, changed, or deleted files under version control	○	◉	○	○	○	1/1	✓
Create a replica of remote repository into folder on the local system	◉	○	○	○	○	1/1	✓
Make a new version	○	○	◉	○	○	1/1	✓
Sync any new versions on the local system with the remote system	○	○	○	○	◉	1/1	✓
Sync any new versions on the remote system with the local system	○	○	○	◉	○	1/1	✓

✓ 12. What does it mean to instantiate a class object? *   1/1

○ duplicate a class

○ delete a class

◉ create an object from the class ✓

○ connect two clases to each other

✓ 13. A constructor is a *   1/1

○ variable

○ class

○ attribute

◉ method ✓

✓ 14. These diagrams help organize and model the requirements of a system showing the cases of use and actors?   *1/1

○ sequence diagrams

○ collaboration diagrams

◉ use case diagrams ✓

✓ 15. A getter is a *   1/1

◉ method ✓

○ attribute

○ class

○ variable

✓ 16. In Java, What name must have a constructor? *   1/1

○ a verb

○ the name of the package

○ any name

◉ the same name as the class   ✓

✓ 17. Classification (the noun) is the process of group objects together into *1/1
sets based on common properties

○ True

◉ False   ✓

✓ 18. Classification (the verb) or "class" is a set of objects that have the   *1/1
same kinds of attributes and methods

○ True

⦿ False   ✓

✓ 19. One way to find potential classes in a system is to document a high-   *1/1
level description of the system and look for nouns. Those nouns are
most likely to represent meaningful classes.

⦿ True   ✓

○ False

✓ 20. Use cases are used to document the requirements (the goals) of a   *1/1
system

⦿ True   ✓

○ False

✓ 21. C++, C# and Java are structured programming languages * 1/1

○ True

◉ False   ✓

✓ 22. Object Oriented code makes it easy to add new classes without *1/1
   modifying existing functions

◉ True   ✓

○ False

✓ 23. C ++ and Java are declarative programming languages * 1/1

○ True

◉ False   ✓

✕ 24. A method that is called from another method inside the same class should be defined later in the same class, i.e., after the method that called it *0/1

◉ True   ✕

◯ False

Respuesta correcta

◉ False

✓ 25. WheelsList is a good name for a variable *   1/1

◯ True

◉ False   ✓

✓ 26. A good programming practice is to use nouns to name the methods *   1/1

◯ True

◉ False   ✓

◯ Otro:

✕ 27. Classes + Relations (Reverse Engineering). Draw the class diagram *.../10
   corresponding to the following code. Convert every attribute to
   associations, aggregations, compositions or dependencies, with
   appropriate names and multiplicity constraints (Upload the Png/Jpg file
   here, and the vpp and png file to the repository):

```
@author OOP|instructors */
c class POOExam1P27 {
  public static void main(String[] args) {
    E e = new E();Question10
    C c = new C();
    e.m2(c);
    //Optional code
    A a = new A();
    B b1 = new B();
    B b2 = new B();
    a.m1(b1, b2);
  }
}
public class A {
  private B b1;
  private B b2;
  /**
   * This method uses two objects of type B
   * @param x of type B
   * @param y of type B
   */
  public void m1(B x, B y){
  }
}
public class B {
}
public class C {
  private B b;
}
public class E {
  private A a;
  private B[] b = new B[10];
  /**
   * This method will allow to use an object of type C, and returns nothing
   * @param z this is an object of type C
   */

  public void m2(C z) {
```

Based on the previous answer (Class diagram). Answer the following questions with an integer number. use digits. DON'T use words

✕ 28. How many associations is the B class connected to? *   0/2

4   ✕

Respuesta correcta

3

✓ 29. How many associations is the A class connected to? *   2/2

2   ✓

✕ 30. The multiplicity constraint between C and B, on the class B is? *   0/2

0..*   ✕

Respuesta correcta

1

✓ 31. How many dependencies is the A class connected to? *   2/2

1   ✓

✓ 32. The maximum value of the multiplicity constraint between E and B, on *2/2
      the B class is?

10   ✓