Q1.a class and its instances. Is it a one-to-one or a one-to-many partnership, for example? Q1. Define the relationship between

Ans : Association is a relation between two separate classes which establishes through their Objects. Association can be one-to-one, one-to-many, many-to-one, many-to-many. In Object-Oriented programming, an Object communicates to another object to use functionality and services provided by that object.

Q2. What kind of data is held only in an instance?

Ans: an instance of a concrete data class, a concrete class derived from the Data- base class.

Q3. What kind of knowledge is stored in a class?

Ans: Declarative Knowledge: This knowledge can be expressed in a declarative form, such as facts, rules, or propositions. ...

Procedural Knowledge: This knowledge is used to perform specific tasks or actions and is often represented using algorithms or programming languages.

Q4. What exactly is a method, and how is it different from a regular function?

Ans: A method is a procedure or function in object-oriented programming.

Q5. Is inheritance supported in Python, and if so, what is the syntax?

Ans: class derived\_classname : access base\_classname{ /\*define class body\*/ };

Q6. How much encapsulation (making instance or class variables private) does Python support?

Ans: there is no existence of Private instance variables that cannot be accessed except inside a class.

Q7. How do you distinguish between a class variable and an instance variable?

Ans: Instance variables are declared in a class, but outside a method, constructor or any block.

Q8. When, if ever, can self be included in a class's method definitions?

Ans: you define an instance method, since it is passed automatically as the first parameter when the method is called

Q9. What is the difference between the \_ \_add\_ \_ and the \_ \_radd\_ \_ methods?

Ans: the former calculates x + y whereas the latter calculates y + x

Q10. When is it necessary to use a reflection method? When do you not need it, even though you support the operation in question?

Ans: getConstructors()

Q11. What is the \_ \_iadd\_ \_ method called?

Ans: returns a new object(third) i.e. the addition of the other two objects.

Q12. Is the \_ \_init\_ \_ method inherited by subclasses? What do you do if you need to customize its behavior within a subclass?

Ans: initialize the attributes of the parent class.