**1. Why we go OO ABAP?**

ABAP code runs slower, Take more time to code, Difficult to debug, Difficult to understand the program concepts.

**2. Advantage of ABAP?**

Simplicity.

Adopt the universal approach for modern programming.

Programs are organized into classes and objects and the functionalities are embedded into methods of a class.

Reusability and less coding time.

Ability to handle complexity.

**3. What is attributes?**

Attributes are data fields of a class that can have any datatype such as C, I, N etc. They are declared in the class declaration.

They are two types of attributes: Static and instance.

**Instance attribute:**

Uniquely hold value for every object instance.

**Static attribute:**

Throughout the entire execution of the program this attributes maintain their value and any modifications made to them affects all instance simultaneously.

Note: Static method cannot access instance attribute but instance method can access both.

CLASS <CLASS\_NAME> DEFINITION.

PUBLIC SECTION.

CLASS-DATA <STATIC\_ATTRIBUTE> TYPE <DATA\_TYPE>.

ENDCLASS.

**4. What is object?**

An object is self-contained units status is determined by value of the attributes. An object is a unique identity of a class. An object is a user defined data type with the help of class. An objects use properties of class. Create a objects from reference variable

Reference variable: DATA: <OBJECT NAME> TYPE REF TO <CLASS NAME>.

Object: CREATE OBJECT <OBJECT NAME>.

**5. What is class?**

Class is the collection of objects, which has same characteristics. Class define the characteristics of an objects and object use the properties of the class. All components and properties of an object are declared in class.

CLASS <CLASS NAME> DEFINITIONS.

PUBLIC SECTION “DEFINE PUBLIC ATTRIBUTES AND METHODS.

PRIVATE SECTION “DEFINE PRIVATE ATTRIBUTES AND METHODS.

PROTECTED SECTION “DEFINE PUBLIC ATTRIBUTES AND METHODS.

END CLASS.

**6. How many access modifiers available in class?**

**Public section**

Section contains attributes and methods that can be accessed from outside the class.

**Protected section**

Attributes and methods declared in the section are accessible with in a class and sub classes but not external users outside the class.

**Private section**

Attributes and methods that are only accessible with in a class itself.

**6. What is methods?**

Methods allow objects to perform operations. It read and changes the status of the object and interact with other objects by calling their methods. A method has parameter interface and can be pass on exceptions.

**7. What is inheritance?**

ABAP Object support simple inheritance. A class can be declared as the direct subclass of exactly one superclass. It derive code functionality from one class to another. It means in terms of another parent class.

Class that is inherited is called parent or base or super class and the class inheriting the base class is the child class o derived or sub class.

CLASS <SUBCLASS NAME> DEFINITION INHERITING FROM <SUPER CLASS>.

|  |  |  |  |
| --- | --- | --- | --- |
| **ACCESS** | **SAME CLASS** | **DERIVED CLASS** | **OUTSIDE (NON-DERIVED CLASS)** |
| **PUBLIC** | Yes | Yes | Available |
| **PRIVATE** | Yes | No | No |
| **PROTECTED** | Yes | Yes | No |

**8. What is the events in OO ABAP?**

If an event handler method in turn trigger an event, then program flow is again interrupted and all event handler methods are executed (nesting).

**8. What is constructor?**

Constructor is a special method with in class SAP ABAP trigger automatically upon creation of object. Constructor responsible for allocating memory space of an object set initial value either user defined or system default to instance variable with in object.

Constructor is triggered automatically when object is initiated using create object statement.

**9. What is Me operator in OO ABAP?**

Methods utilize the ME operator to reference the current instance of a class. Me operator within method of a class facilities direct reference to the current instance of that particular class.

CLASS <CLASS\_NAME> DEFINITION.

PUBLIC SECTION.

DATA: <ATTRIBUTE\_NAME> TYPE <DATA\_TYPE>.

METHODS: <METHOD NAME>.

ENDCLASS.

CLASS <CLASS\_NAME> IMPLEMENTATION.

METHOD <METHOD\_NAME>.

ME-> <ATTRIBUTE\_NAME> = <VALUE>.

ENDMETHOD.

ENDCLASS.

**9. Public section object can create object in another class?**

Yes, Same protected and private section can’t create object in another class.

**10. What is class deferred?**

We deferred a class without defining the class.

CLASS CLASS\_2 DEFINITION DEFERRED. *" HOW CAN REFER TO A CLASS WITHOUT DEFING THE CLASS BUT CLASS HAS TO BE DEFINED ON.*  
  
CLASS CLASS\_1 DEFINITION.  
  PUBLIC SECTION.  
    DATA LV\_OBJECT TYPE REF TO CLASS\_2.  
ENDCLASS.  
  
CLASS CLASS\_2 DEFINITION.  
  PUBLIC SECTION.  
    DATA LV\_NUM TYPE I VALUE 5.  
ENDCLASS.  
**10. What is pass by value and pass by reference in OO ABAP?**

Parameter pass by value changed internally.

Parameter pass by reference cannot changed in methods.

**Points to remember:**

BADI concept for OO enhancement.

**11. Why use class definition load?**