Unit-II

1. **What is a class ?**
   It is an extension to the structure data type. A class can have both variables and functions as members

2. **What is the difference between structure and a class ?**
   The only difference between a structure and a class in C++ is that , by default , the members of a class are private, while , by default the members of a structure are public.

3. **What is the specification for a class ?**
   - Class declaration
   - Class function definitions
   -

4. **What are data members and member functions?**
   The variables declared inside the class are known as data members and the functions are known as member functions. The data members are usually private and member functions as public.

5. **Give a simple class example.**

```
class item
{
int number;
float cost;
public:
void getdata(int a, float b);
```

void putdata(void);

};

Here class name is item

Data : number, cost

Functions: getdata(), putdata()

6. **What are objects ?**

The class variables are called objects. With objects we can access the public members using dot operator

7. **How is amember function of a class is defined?**

It can be defined either inside or outside the class

8. **What are the characteristics of member functions ?**
   - Several different classes can use the same function name. the membership label will resolve their scope
   - Member functions can access the private data of the class. Anon member function cannot do so
   - A member function can call another function directly ,without using dot operator

9. **When a function is defined inside a class ?**
   - it is treated as a inline function
   - only small functions are defined inside the class definition

10. **What is nesting of member functions ?**

Amember function can be called by using its name inside another member function of the same class, is known as member function

11. **How the space is allocated for the objects?**

The memory space is allocated when they are declared . space for the member variables is allocated separately for each object, but no separate space is allocated for the member functions

12. **When do we declare a member of a class static ?**

When it is used to maintain values common to the entire class. The static member variables defined outside the class

13. **What is a friend function?**

The functions that are declared with the keyword friend are known as friend functions. A function can be declared as a friend in any number of classes, it has full access rights to the private members of the class.

14. **What are the special characteristics of friend function ?**

- Can be invoked like a normal function, with the help of the object
- It has the objects as arguments
- It is not in the scope of the class to which is has been declared has friend

15. **What is const member function ?**

If a member function does not alter any data in the class, then we declare it as const member function. The keyword const is appended to the function prototype.

16. **What is a constructor ?**

It is a special member function whose task is to initialize the objects of its class. It is special because its name is the same name as the class name.

17. **How do we invoke constructor function?**

It is invoked whenever an object of an associated class is created. It is called constructor because it constructs the values of data members of the class.

18. **List some special properties of constructor functions**.

- They should be declared in the public section
- They are invoked automatically when the objects are created
- They do not have return types, therefore they cannot return values
- They cannot be inherited
- They can have default arguments
- Cannot refer to addresses

19. **what is parameterized constructor ?**

It is nothing but passing arguments to the constructor function when the objects are created. The constructor can take arguments are called parameterized constructor.

20. **What is copy constructor ?**

The constructor that creates a new class object from an existing object of the same class.

21. **What is dynamic initialization of objects ?**

The initial value of an object provided at the run time. The advantage is that we can provide various initialization formats ,using overloaded constructors.

22. **What is dynamic constructor ?**

Allocation of memory to objects at the time of their construction is known as dynamic construction of objects. The memory is allocated with the help of new operator.

23. **What is a destructor?**

It is used to destroy the objects that have been created by a constructor, when they no longer required.