



Question Bank

Class: 2nd Year IT

Subject: OOT (4IT 03)

1. What is Object Oriented Programming? What are Advantages, Disadvantages & Application of OOP?
2. Explain Key Concepts of OOP.
3. What is ANSI standard?
4. Differentiate between OOP & Procedure-Oriented Programming.
5. What are object? How they are created?
6. What is mean by class? What are the different types of member of class? How they are defined?
7. What is class? How does it accomplish data hiding?
8. Distinguish between the following two terms.
 - a. Objects & Classes
 - b. Data Abstraction & Data Encapsulation
 - c. Inheritance & Polymorphism
 - d. Dynamic Binding & Message Passing/Communication
9. Explain the use of Private and Public keyword? How they are different from each other?
10. Explain Constructor and Destructor and their characteristics.
11. What is constructor? Is it mandatory to use constructor in a class?
12. List some of the special characteristics/properties of the constructor function.
13. Describe the importance of destructor.
14. Explain copy constructor.
15. Describe the mechanism of accessing data member functions in the following case
 - a. Inside the main program
 - b. Inside member function of the same class.
 - c. Inside member function of another class.
16. Distinguish between the following two statements
time T1(T2);
time T2 = T1;
T1 & T2 are objects of time class.
17. Describe inheritance in OOP.
18. What does inheritance mean in C++?
19. What are the different forms of inheritance in C++? Give an example for each.
20. Explain various visibility modes in C++.
21. Explain protected visibility mode.
22. Explain function overloading and overloading member function.
23. How Constructor and Destructor are executed in multilevel inheritance.
24. What is containership? How does it different from inheritance.
25. Write a program to demonstrate the use of array of objects and object as function argument.
26. Write a program to accept the elements of the class
Emp_no
basic_pay
and display the salary slip along with DA, HRA, CCA & Gross Salary.
The DA & CCA are calculated as
DA = 81% basic pay for salary <5000
= 51% of basic pay for salary between 3000-7000

= 41% of basic pay for salary >7000

CCA = Rs 350/-

27. Write a program to declare a class with two integers. Read values using member function. Pass the object to another member function and display the values.
28. Write a program to calculate energy bill. Read the starting and ending meter reading. The charges are as given below:
- | No. of units consumed | Rates in (Rs.) |
|-----------------------|----------------|
| 200-500 | 4.50 |
| 100-200 | 3.50 |
| Less than 100 | 2.50 |
29. The postage for ordinary post is Rs. 2/- for the first 15 grams and Re. 1 for each additional 10 grams. Write a program to calculate the charge of the postage for a post weighing N grams. Read the weight of N packets and display the total amount of postage.
30. Write a program to generate Fibonacci series using recursion with member function.
31. What is “this” pointer? Explain its use with proper example.
32. Explain static member function with suitable example.
33. Explain static data members with suitable example.
34. Explain Virtual Base Class with class diagram and syntax. Also write a program to demonstrate it.
35. What are the rules to specify the class as virtual base class?
36. Explain the overloading of insertion and extraction operator with suitable rule.
37. What are file pointers? Explain the functions for manipulation of file pointers with example.
38. What is stream? Explain Stream class hierarchy in details.
39. List and explain the different modes for opening the files.
40. Write a C++ program to copy the contents of one file into another file and display those contents on screen.
41. What is the difference between opening file with a constructor function and opening file with open () function?
42. How to detect end of file? Explain with proper example.
43. Explain the keywords: try, catch and throw used for exception handling.
44. What are templates? What is the difference between class and function templet?
45. What are exceptions? Why do we need exceptions? Explain with example try, catch and throw. Give its syntax.
46. What is container? List out its various types and explain in brief.
47. Explain containership with example and program.
48. Give the general form of operator overloading function. Write a program to overload a comparison operator (<) with suitable example.
49. What do you mean by operator overloading? What are the pitfalls of operator overloading? Explain in brief.
50. What is use of new and delete operator? Explain by giving syntax and example.
51. Explain: i) Pure Virtual Function ii) Early Binding
iii) Late Binding iv) Polymorphism v) Friend Function
52. Explain string class in C++. Write a program to demonstrate the any three string functions in C++.
53. Explain virtual function and write a program to demonstrate it.
54. Write a program to demonstrate the pointer to object.