S.Y.BSc Div. B computer science

Solve the following Assignment.

Q1.) All questions are compulsory.

1. Explain Class
2. Define Object
3. Define Array of object
4. Define Constructor
5. Define Destructor
6. Explain special Properties of Constructors and destructors.
7. Define copy constructor with its use.
8. What is Function overloading? Explain with example.
9. What is Operator overloading? Explain with example.
10. Explain Data abstraction.
11. Define Data encapsulation
12. Explain Polymorphism with example.
13. Explain Call by value
14. Explain Call by reference
15. Explain return by value.
16. Explain Return by reference
17. Explain reference variable.
18. What are Manipulators? List any 3.
19. Explain Stream classes in detail.
20. Define Static class members
21. Explain Runtime polymorphism
22. Define Compile time polymorphism
23. Define getline() function
24. What is Virtual function.
25. Define Virtual Base class.
26. What is Friend function.
27. Define Pure virtual function
28. Define Inline function
29. Explain Abstract class with suitable example.
30. Explain the function of Scope resolution operator.
31. Define ‘This’ pointer
32. Define Inheritance. Explain different types of Inheritance with suitable example.
33. Define File
34. Define Early binding
35. Define Late binding
36. Define Input stream
37. Define Output stream
38. Explain function templet and class templet.
39. Write a program to explain multiple catches.
40. Explain different functions used in file handling.
41. Explain different stream classes used in file handling.

Q2.) Differentiate:

1. ‘Call by value’ and ‘Call by reference’
2. ‘Overloading’ and ‘Overriding’
3. ‘Top-down approach’ and ‘Bottom-up approach’
4. ‘Inline function’ and ‘Macros’
5. ‘Virtual function’ and ‘Pure virtual’

Q3.) Short notes:

1. Friend function
2. Memory Allocation in C++ (New and delete operators)
3. Scope of variable in C++ (Global variables and local variables)
4. Types of constructors

Q4.) Answer the following:

1. State the advantages of OOPS
2. How many objects can be created?
3. Explain execution of constructor and destructor in inheritance
4. Explain scope resolution operator with uses
5. Explain rules of operator overloading
6. Give ways of calling parameterized constructor
7. What is the purpose of generic catch block
8. Explain diamond problem
9. Give advantages and disadvantages of inline function / friend function
10. Explain ways of opening a file in c++