TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS
EXAMINATION : MAY - 2024
SEMESTER - II
Sub: Object Oriented Programming (C++) (MSC 201-22)

Date : 22/05/2024   Total Marks : 60   Time: 10.00 am to 12.30 pm

Instruction:
1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labelled diagrams wherever necessary.*

Q.1   **Answer the following in 2-3lines. (Any 5)**   **(10)**

1. Give difference between class and structure.

2. What is 'this' pointer?

3. What is file?

4. What is difference between private and protected access specifiers?

5. What is an array? How it is declared in C++

6. What are manipulators in c++?

7. What are operators cannot be overloaded?

Q.2   **Answer the following in short. (Any 4)**   **(20)**

1. How dynamic memory allocation is done in c++ ? Illustrate with example.

2. What is inline function? Why it is used? Write a program to illustrate inline function.

3. What is exception handling? Explain with suitable example.

4. What are the various class access specifiers? How public inheritance differs from private inheritance?
5. What are virtual functions? Illustrate with example.

6. Explain default argument with example.

Q.3   **Answer the following in detail. (Any 3)**   **(30)**

1. What is Constructor? Explain overload Constructor with example.

2. Write short notes on:
   a. Friend Function
   b. Early binding and late binding
3. What does inheritance means in c++? What are different forms of inheritance? Give an example of any two.
4. Explain object oriented concept in c++.

5. Make a class named Fruit with a data member to calculate the number of fruits in a basket. Create two other class named Apples and Mangoes to calculate the number of apples and mangoes in the basket. Print the number of fruits of each type and the total number of fruits in the basket.

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