

TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS
EXAMINATION : DECEMBER - 2023
SEMESTER - II
Sub: Object Oriented Programming (C++) (MSC-201-22)

Date : 14/12/2023

Total Marks : 60

Time: 2.00 pm to 4.30 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.
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Q.1 Answer the following in 2-3lines. (Any 5) (10)

1. State the use of scope resolution operator and its use in C++
2. State use of new operator.
3. Differential between Procedural programming and object oriented programming
4. What is abstract class?
5. What is use of inline function?
6. Compare and Contrast late binding and early binding.
7. What is function prototype?

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

1. List and explain use of any four file mode parameters
2. Explain use of friend function with the help of suitable example.
3. Explain different access specifiers used in C++
4. State rules for virtual function.
5. Draw hierarchy of stream classes for file operations.
6. What is a constructor? How do we invoke a constructor function? Describe with an example.

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

1. Explain function overloading with example.
2. What are the different forms of inheritance supported by C++? Explain any two with examples.
3. Discuss briefly with example how exception is caught.
4. Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output functions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information.
5. Explain object oriented concept.