

3E1204**3E1204**

B.Tech. III Sem. (Main) Examination, April/May - 2022
Artificial Intelligence & Data Science
3AID4-06 Object Oriented Programming
AID, CAI, CS, IT

Time : 3 Hours

Maximum Marks : 70

Instructions to Candidates:

Attempt all ten questions from **Part A**. All five questions from **Part B** and three questions out of Five questions from **Part C**.

Schematic diagrams must be shown wherever necessary. Any data missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination (As mentioned in form No.205)

PART - A

(Word limit 25)

(10×2=20)

1. What is the difference between struct and class in C++?
2. How do you declare a member function in C++?
3. Define constructor in C++?
4. Why inline function is used?
5. What is an abstract class?
6. Can we create object of virtual class in C++?
7. What are static data member in C++?
8. Define Polymorphism?
9. Define function templates?
10. What are the three file stream classes?

PART - B

(Word limit 100)

(5×4=20)

1. What do you mean by exception handling? Explain the four steps of exception handling?
2. What do you mean by friend function in C++?
3. Explain function overriding in C++ with example?
4. Explain Dynamic binding with example.
5. What is OOP? Explain its characteristics.

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PART - C

(Any Three)

(3×10=30)

1. Define class? How can we define member function inside and outside the class in C++? Explain with suitable example.
 2. Explain :
 - a) new and delete operators.
 - b) inline function.
 3. What is inheritance? Explain the types of inheritance? Write a program to add two numbers using multiple inheritance in C++?
 4. What is operator overloading? Explain unary and binary operator overloading in C++ with suitable example?
 5. How exception are handled in C++ programming explain with program?
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