C20-CM/WD–404

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BOARD DIPLOMA EXAMINATION, (C-20)

NOVEMBER/DECEMBER—2022

DCME – FOURTH SEMESTER EXAMINATION

OOPS THROUGH C++

Time : 3 hours] [*Total Marks* : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. List the benefits of OOPs.

2. List different types of object oriented programming languages.

3. List the uses of Friend Function.

4. What is the use of 'this' operator?

5. List the operators that can't be overloaded.

6. Define operator overloading.

7. Define base class and derived class.

8. Write the necessity of inheritance.

9. Write the I/O manipulators used in C++.

10. Write the need for template.

PART—B

8×5=40

Instructions : (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. *(a)* Explain C++ operators with example program.

(OR)

(b) Explain Object Oriented paradigm.

12. *(a)* Explain inline function with C++ program.

(OR)

(b) Explain the concept of returning objects from functions with C++ program.

13. *(a)* Write a C++ program for Binary Operator (+) overloading with ordinary member function.

(OR)

(b) Define destructor. Write a C++ program using destructors.

14. *(a)* Write a C++ program to implement single inheritance.

(OR)

(b) Explain the concept of virtual function using C++ program.

15. *(a)* Write a simple C++ program to create classes based on templates.

(OR)

(b) Write a C++ program for templates with single argument types.

PART—C

10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. How does C++ achieve compile time polymorphism?

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