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BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DCME - FOURTH SEMESTER EXAMINATION

OOPS THROUGH C++

Time : 3 hours ]

[ Total Marks : 80

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**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. Define polymorphism.
2. List the advantages of OOPs.
3. What is the purpose of delete operator?
4. Define class and object with syntax.
5. What is Dynamic constructor?
6. Define Destructor.
7. What is the necessity Inheritance?
8. Define Virtual base class.
9. List the advantages of class Template.
10. Write about open( ), read( ) and write( ) functions.

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**PART—B**

8×5=40

- Instructions :** (1) Answer *all* questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. (a) List the differences between C and C++.

**(OR)**

(b) How to create, compile, link and execute a C++ program?

12. (a) Explain function overloading with C++ program.

**(OR)**

(b) Explain the concept of passing objects to function with a simple C++ program.

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

**(OR)**

(b) Explain Constructor Overloading with a C++ program.

14. (a) Write a C++ program to implement Multiple Inheritance.

**(OR)**

(b) Explain the rules for virtual functions in C++ and list the applications of virtual functions.

15. (a) Write a C++ program using Class Template for Stack Data structure.

**(OR)**

(b) Explain about Binary I/O Functions like get( ) and put( ).

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**PART—C**

10×1=10

- Instructions :** (1) Answer the following question.  
(2) The question carries **ten** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 16.** Explain the difference when the members in a class is declared as public, private and protected.

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