C20-CM-WD-404

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BOARD DIPLOMA EXAMINATION, (C-20)

MAY—2023

DCME - FOURTH SEMESTER EXAMINATION

OOP 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 any three benefits of oops.

2. Write any three differences between C and C++.

3. Write the purpose of this keyword.

4. State the use of pointer object in C++.

5. Write the syntax of copy constructor in C++.

6. List any three operators which should not be overloaded in C++.

7. Define an inheritance.

8. Write the purpose of protected access specifier.

9. Write the purpose of cerr() and clog() streams in C++.

10. Define template in C++.

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)* Explain the basic concepts of oops.

(OR)

(b) write a C++ program to print big and small among n numbers using arrays.

12. *(a)* Explain the concept of function overloading in C++ with example.

(OR)

(b) Write a C++ program to perform dynamic memory allocation.

13. *(a)* Write a C++ program to print area of rectangle and square using constructor overloading.

(OR)

(b) Write a C++ program to overload unary-operator.

14. *(a)* Explain single and multiple inheritances with an example.

(OR)

(b) Explain virtual base class concept in C++ with an example.

15. *(a)* Explain different types of templates in C++.

(OR)

(b) Write a C++ program queue operation using class templates.

PART—C

10×1=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. Is it possible to overload method and constructor in same class? If it is, justify the answer with an example.

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