



C20-CM-WD-404

7437

BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—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. Define 'Data abstraction' and 'Data encapsulation' in C++.
2. Define class and object.
3. Explain the concept of compile time polymorphism.
4. Explain the usage of comment statements in C++.
5. Define constructor and destructor.
6. List any three rules for overloading of operators.
7. List the different types of access specifiers available in C++.
8. Explain the relationship between base and derived classes.
9. Define manipulator in C++ and write the purpose of it.
10. State the need for templates in C++.

*

- 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 complete procedure of create, compile, link, load and execution of C++ program.

(OR)

- (b) Differentiate between procedure oriented and object oriented languages.

12. (a) Explain the different parameter passing mechanisms with default arguments available in C++.

(OR)

- (b) Write a C++ program to illustrate the concept of passing objects to functions.

13. (a) Explain the different types of constructors available in C++.

(OR)

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

- * 14. (a) Explain the concept of virtual function with an example.

(OR)

- (b) Explain multilevel and hybrid inheritances in detail.

15. (a) Write a C++ program to perform stack operations using class templates.

(OR)

- (b) Write a C++ program to perform append operation over an existing file and print the updated data.

*

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 friend() function in C++ will provide the security to the program, if it is give reasons and if not give reasons to justify your answer with an example.

★★★

*