## 7437

# **BOARD DIPLOMA EXAMINATION, (C-20)**

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

**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 funcion 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 funcion.

(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().

**PART—C**  $10 \times 1 = 10$ 

**Instructions:** (1) Answer the following question.

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- (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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