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C14–CM–405/C14–IT–405

4453

BOARD DIPLOMA EXAMINATION, (C–14)

MARCH/APRIL—2016

DCM—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. Write any three differences between procedure-oriented and object-oriented programming. 3

2. What is data encapsulation? 3

3. What is overloading? List the different types of overloading techniques. 2+1=3

4. Define inline function. 3

5. List the uses of reference variable in C++. 3

6. What is single inheritance? Write the syntax of single inheritance. 1+2=3

7. Write the different types of access modes. 3

8. What is the need of virtual base class? 3

9. List the different types of manipulators. 3

10. Define a function template. 3

PART—B 10×5=50

Instructions : (1) Answer *any* **five** questions.

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

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

11. *(a)* Explain the structure of C++ program.

(b) Write a C++ program that implements the dynamic initialization of a variable. 5+5=10

12. Write a C++ program that finds the maximum of two numbers using friend function. 10

13. *(a)* Write the differences between constructor and destructor.

(b) Write a C++ program to illustrate the binary operator overloading. 5+5=10

14. Write a C++ program that illustrates the concept of pointer to objects. 10

15. Explain the multiple inheritance with an example program. 10

16. Write a C++ program that implements virtual function. 10

17. *(a)* What are file modes? Describe various file mode options.

(b) Write about formatted data and unformatted data. 5+5=10

18. Explain class template with an example program. 10

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