F–6091	Sub. Code
	7BCE2C1

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.

Second Semester

Computer Science

OBJECT ORIENTED PROGRAMMING WITH C++

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What are the application of OOP?

2. Define Data Abstraction.

3. Define member function.

4. What is static binding?

5. What is an abstract class?

6. Define virtual base class. Give an example.

7. What is virtual function?

8. What are the differences between pointers to constants and constant pointers?

9. Define 'this' pointer.

10. What are the advantages of template function in C++?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What are the features of Object oriented programming?

Or

(b) Describe data types in C++ in Details.

12. (a) Write a C++ program to illustrate the static function.

Or

(b) Explain the copy constructors with an example.

13. (a) Explain briefly about function overloading with a suitable example.

Or

(b) Write the rules for overloading operators.

14. (a) Explain use of pointer in C++.

Or

(b) Define pure virtual function. Give an example program.

15. (a) Write a simple program to read content from one file and write them into another file.

Or

(b) Discuss the command line arguments in detail.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Explain the basic concepts of Object oriented programming.

17. Discuss all constructor types and destructors with example.

18. Write a program to add two complex numbers using operator overloading concept.

19. Write a C++ program demonstrating use of the pure virtual function with the use of base and derived classes.

20. Explain the use of ifstream and ofstream classes for file input and output.

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