## 53502/120C2A/ 141C2A

Time: Three hours

Maximum: 75 marks

PART A —  $(10 \times 2 = 20 \text{ marks})$ 

Answer any TEN questions.

- 1. Mention the need for object-orientation.
- 2. What is abstraction?
- 3. Write a note on this pointer.
- 4. What do you mean by operator overloading?
- 5. What are the types of conversion functions in C++? Give example.
- 6. What is function overriding?
- 7. State the purpose of virtual functions.
- 8. Define: "Iterators".
- 9. Show the need of restricting exceptions.

- 10. Comment on class templates.
- 11. List out the methods used for fstream class.
- 12. Define the term "Manipulator".

PART B — 
$$(5 \times 5 = 25 \text{ marks})$$

Answer any FIVE questions.

- 13. Distinguish between the friend functions and friend classes.
- 14. Explain the declaration of pointer to objects with example.
- 15. What are the base class and derived class constructors? Explain.
- 16. Summarize the concept of virtual base classes with example.
- 17. Elaborate the multiple inheritance with simple C++ program.
- 18. Point out the handling exceptions in derived classes.
- 19. Write down the opening and closing a file in C++.

## PART C — $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 20. Compare and construct constructors and destructors.
- 21. Discuss the overloading an operator as a member function.
- 22. Outline the declaration of pure virtual function with example.
- 23. Evaluate the function templates with multiple parameters.
- 24. Illustrate the need of unformatted and binary I/O.