

Roll No. : .....

Total No. of Questions : 16 ]

[ Total No. of Printed Pages : 3

# DCOM-122

M.Sc. (Computer Science) (Ist Semester)  
Examination Jan., 2023

## C++ PROGRAMMING

Paper - FS-COMP-MSC-CS-CC-104

Time : 3 Hours ]

[ Maximum Marks : 40

The question paper contains three Sections.

### Section-A

(Marks : 1 × 10 = 10)

*Note* :- Answer all *ten* questions (Answer limit 50 words). Each question carries 1 mark.

### Section-B

(Marks : 3 × 5 = 15)

*Note* :- Answer any *five* questions by selecting at least *one* question from each Unit (Answer limit 200 words). Each question carries 3 marks.

### Section-C

(Marks : 5 × 3 = 15)

*Note* :- Answer any *three* questions by selecting *one* question from each Unit (Answer limit 500 words). Each question carries 5 marks.

### Section-A

1. (i) What is meant by Object-Oriented Programming ?
- (ii) What are the three paradigms of Object-Oriented Programming ?
- (iii) How many functions are there in Object-Oriented Programming ?

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- (iv) Why is array is used ?
- (v) What is Class ?
- (vi) What is base class ?
- (vii) Define inline function.
- (viii) What is a String class ?
- (ix) Why templates are used in C++ ?
- (x) What are C++ 11 features ?

### **Section-B**

#### **Unit-I**

- 2. What are the applications of OOP in C++ ?
- 3. What are the branching statements in C++ ?
- 4. What is argument passing by value and by reference ?

#### **Unit-II**

- 5. What is overloading and overriding in C++ ?
- 6. What is virtual function ? Explain with example.
- 7. Why some operators are not overloaded in C++ ?

#### **Unit-III**

- 8. What is C++14 and C++17 ? Which one is better and why ?
- 9. What is Searching ? Explain linear search explain with an example.
- 10. What is bucket sort ? Explain it with an example.

### **Section-C**

#### **Unit-I**

- 11. What are the advantages of object-oriented programming over procedure-oriented programming ?

12. Explain the following :

- (a) Array and function
- (b) Array and pointers.

### **Unit-II**

13. What is Polymorphism ? Explain run time polymorphism with a suitable example.

14. Explain constructor and destructor functions giving suitable example.

### **Unit-III**

15. What is string handling ? Explain with a suitable example.

16. Explain the following :

- (a) Selection sort
- (b) Bubble sort.