

**1911000303020081**  
**EXAMINATION FEBRUARY-MARCH 2024**  
**BACHELOR OF SCIENCE (THIRD SEMESTER)**  
**COMPUTER SCIENCE PAPER - III**  
**301- OBJECT ORIENTED PROGRAMMING: C++**

[Time: As Per Schedule]

[Max. Marks: 50 ]

**Instructions:**

- 1. Fill up strictly the following details on your answer book**
  - a. Name of the Examination: **BACHELOR OF SCIENCE (THIRD SEMESTER)**
  - b. Name of the Subject: **COMPUTER SCIENCE PAPER - III 301- OBJECT ORIENTED PROGRAMMING: C++**
  - c. Subject Code No: **1911000303020081**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

**Q.1 Answer the following questions (Any Seven).**

**14**

- (a) Define class and object.
- (b) What is pure virtual function? How can we declare it?
- (c) What do you mean by inline function? Give example.
- (d) What is destructor? What is the purpose of it?
- (e) List out the operators which cannot be overloaded.
- (f) What are the different uses of scope resolution operator (::)?
- (g) What do you mean by cascading of I/O operator?
- (h) Explain get () and put () function.

**Q.2 Answer the following questions.**

- (a) What is friend function? Explain friend function with proper example. **6**
- (b) Define constructor. Explain various types of constructor with example. **6**

**OR**

- (a) How can we open a file? Explain various file opening mode in details. **6**
- (b) What are the differences between constructor and destructor? Explain copy constructor with example. **6**

**Q.3 Answer the following questions.**

- (a) What is the purpose of inheritance? Explain multiple inheritance with suitable example. **6**
- (b) Write a detailed note on operator overloading. Explain with proper example. **6**

**OR**

- (a) What do you mean by polymorphism? Explain runtime polymorphism with example. **6**
- (b) What is diamond problem? How can we solve it? Explain by giving example. **6**

**Q.4 Answer the following questions. (Any Three) **12****

- (a) Write a note on default arguments.
- (b) Call by value vs. call by reference.
- (c) Explain various functions for manipulation of file pointer.
- (d) Write a detailed note on constructor overloading.

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