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Total No. of Questions: 16 ] [ Total No. of Printed Pages: 3

## **SEM-1032**

# M.Sc. (Ist Semester) Examination, 2022 COMPUTER SCIENCE

Paper - FS-COMP-MSC-CC-104

(C++ Programming)

Time: 3 Hours [ Maximum Marks: 40

The question paper contains three Sections.

Section-A (Marks :  $1 \times 10 = 10$ )

**Note**:— The candidate is required to answer all the *ten* questions carries 1 mark each. The answer should not exceed 50 words.

Section–B (Marks :  $3 \times 5 = 15$ )

**Note**:— The candidate is required to answer *five* questions by selecting at least *one* question from each Unit. Each question carries 3 marks. Answer should not exceed **200** words.

Section–C (Marks:  $5 \times 3 = 15$ )

**Note**:— The candidate is required to answer *three* questions by selecting *one* question from each Unit. Each question carries **5** marks. The answer should not exceed **500** words.

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### Section-A

| 1.   | Atten                                                                              | npt all questions. Answer should not exceed 50 words in each question. |  |  |  |  |
|------|------------------------------------------------------------------------------------|------------------------------------------------------------------------|--|--|--|--|
|      | (i) What is Variable ?                                                             |                                                                        |  |  |  |  |
|      | (ii)                                                                               | Define Pointers.                                                       |  |  |  |  |
|      | (iii) What is Recursion?                                                           |                                                                        |  |  |  |  |
|      | (iv)                                                                               | v) What is Class?                                                      |  |  |  |  |
|      | (v)                                                                                | Define Polymorphism.                                                   |  |  |  |  |
|      | (vi)                                                                               | (vi) What is Inline Function?                                          |  |  |  |  |
|      | (vii) What is Linear Search?                                                       |                                                                        |  |  |  |  |
|      | (viii)                                                                             | What is String?                                                        |  |  |  |  |
|      | (ix)                                                                               | Define Heap Sort.                                                      |  |  |  |  |
|      | (x)                                                                                | Define if else statement with syntax.                                  |  |  |  |  |
|      |                                                                                    | Section-B                                                              |  |  |  |  |
| Note | Note: Answer five questions in about 200 words, by selecting at least one question |                                                                        |  |  |  |  |
|      | from each Unit. Each question carries 3 marks.                                     |                                                                        |  |  |  |  |
|      |                                                                                    | Unit–I                                                                 |  |  |  |  |
| 2.   | Write the characteristics of OOPs.                                                 |                                                                        |  |  |  |  |
| 3.   | Define goto statement with example.                                                |                                                                        |  |  |  |  |
| 4.   | What is Pointer? Define with example.                                              |                                                                        |  |  |  |  |
|      |                                                                                    | Unit–II                                                                |  |  |  |  |
| 5.   | What is Operator Overloading ?                                                     |                                                                        |  |  |  |  |
| 6.   | Define virtual and friend function.                                                |                                                                        |  |  |  |  |
| 7.   | What                                                                               | is Inline Function ?                                                   |  |  |  |  |
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#### Unit-III

- 8. What is Searching? Define Binary Search.
- 9. Write a program in C++ which input 10 numbers and sort them in ascending order.
- 10. Write a short note on templates.

#### Section-C

**Note**: Answer *three* questions in about **500** words by selecting *one* question from each Unit. Each question carries **5** marks.

#### Unit-I

- 11. What is Array? Define the various types of Array.
- 12. What is Looping? Define while and do-while loop with example.

#### Unit-II

- 13. What is Inheritance? Define various types of inheritance.
- 14. Define constructors and destructors.

#### Unit-III

- 15. What is String? Define the various string handling functions with example.
- 16. What is Sorting? Define selection and quick sort.

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