**II B. Tech I Semester Supplementary Examinations, September - 2021**
**OBJECT ORIENTED PROGRAMMING THROUGH C++**
(Computer Science & Engineering)

Time: 3 hours                                                    Max. Marks: 75

Answer any **FIVE** Questions each Question from each unit
All Questions carry **Equal** Marks
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| 1 | a) | What are the differences between Procedure Oriented Language and Object-Oriented Language? | [8M] |
| | b) | What are the key concepts of Object-Oriented Language? Explain briefly. | [7M] |

Or

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| 2 | a) | Define a class named 'Train' representing following members: Data members: - Train Number, Train Name, Source, Destination, Date of Journey, Capacity and Member functions: - Initialize members, Input train data, and display data. Write a C++ program to test the train class? | [8M] |
| | b) | In which order the constructors and destructors are executed? Explain with an example. | [7M] |
| 3 | a) | Explain Access specifies and their scope with suitable examples. | [7M] |
| | b) | Write a C++ program to illustrate multiple and multilevel inheritance. | [8M] |

Or

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| 4 | a) | Explain different types of type conversion in C++. | [7M] |
| | b) | What are the rules for overloading operators? | [8M] |
| 5 | a) | Write a C++ program to add two complex numbers with the help of overloading '+' operator. | [8M] |
| | b) | Write a program to implement Run Time Polymorphism in C++. | [7M] |

Or

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| 6 | a) | Illustrate the use of this pointer with an example? | [7M] |
| | b) | Explain static and dynamic binding in C++. | [8M] |
| 7 | a) | Explain use of friend function with the help of suitable example. | [8M] |
| | b) | State the reason for making a class virtual with the help of example program. | [7M] |

Or

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| 8 | a) | What do you mean by Abstract class? Explain with example. | [7M] |
| | b) | Describe the use of call by value and call by reference with suitable example. | [8M] |
| 9 | a) | Write a C++n program to illustrate multiple catch statements? | [7M] |
| | b) | Illustrate the exception handling mechanism. | [8M] |

Or

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| 10 | a) | What is a class template? How is it different from a general class? Explain with an example. | [7M] |
| | b) | Write a program to create a template function for bubble sort and demonstrate the sorting of integers? | [8M] |