

2023
B.A./B.Sc.
Third Semester
 CORE – 5
COMPUTER SCIENCE
Course Code: CSC 3.11
 (Object Oriented Programming in C++)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

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| 1. | (a) Explain ternary operator in C++. | 2 |
| | (b) Explain the C++ tokens. | 3 |
| | (c) Explain the various data type modifiers. | 4 |
| | (d) Explain the different concepts of object oriented programming. | 5 |
| 2. | (a) Differentiate between procedural oriented programming POP and object oriented programming OOP. | 3 |
| | (b) Explain the C++ character set. | 3 |
| | (c) Explain the various storage classes in C++. | 4 |
| | (d) Write a program that illustrates the use of character built in functions. | 4 |

UNIT-II

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| 3. | (a) Explain the switch control statement in C++. | 4 |
| | (b) Explain recursive function. | 4 |
| | (c) Explain the inline and non-inline functions in a class. | 6 |
| 4. | (a) Explain the different iterative loops in C++. | 6 |
| | (b) Explain the operators used for dynamic memory allocation. | 4 |
| | (c) Write a program that generates the Fibonacci series
0 1 1 2 3 5... | 4 |

UNIT-III

- 5. (a) Write a program that illustrates friend function. 4
- (b) Explain the concept of function overloading. 5
- (c) Explain the concept of operator overloading. 5
- 6. (a) Write down the characteristics of constructor. 4
- (b) Explain the private and public members of a class. 5
- (c) Explain the derived class parameterized constructor. 5

UNIT-IV

- 7. (a) Explain enumerated data type. 3
- (b) Differentiate between structure and union. 5
- (c) Discuss the pass by value and pass by reference methods of passing structure to function. 6
- 8. (a) Write a program that illustrates array of structures. 4
- (b) Write a program that illustrates nested structure. 4
- (c) Discuss the working of structure with union as members and union with structure as members. 6

UNIT-V

- 9. (a) Explain the fstream library in data file handling. 3
- (b) Explain the concept of function overriding. 4
- (c) Discuss the different file operations in C++. 7
- 10. (a) Explain the concept of exception handling. 4
- (b) Explain multiple type of inheritance. 4
- (c) Write a program to write and read values using variables in and from file. 6