2022

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 <u>five</u> *questions, taking* <u>one</u> *from each unit.*

UNIT–I

1. (a) Describe the concepts of objected oriented programming.   6
   (b) Explain postfix and prefix increment operators.   4
   (c) Explain the following terms: 2×2=4
      (i) Character set
      (ii) Keywords in C++

2. (a) State the differences between procedural programming and objected oriented programming.   6
   (b) What are the various relational operators in C++?   5
   (c) Define any three string library functions in C++.   3

UNIT–II

3. (a) Describe classes in C++.   6
   (b) Write a program that counts the sum of digits and number of digits in a given number.   4
   (c) Explain inline functions.   4

4. (a) Describe the two types of method definition in classes.   6
   (b) Write a program that determines whether a number is prime or not. 4
   (c) Write a program that determines the smallest of three numbers.   4

UNIT–III

5. (a) Describe function overloading.   6
    (b) Write down the features of friend function.   4
    (c) Explain array of objects.   4

6. (a) Explain operator overloading.   5
    (b) Write down the features of destructors.   5
    (c) Explain copy constructors.   4

UNIT–IV

7. (a) How is structure with union as member different from union with structure as member?   6
    (b) Explain enumerated data type.   4
    (c) Write a program that passes structure to a function.   4

8. (a) Write a program that creates a user defined function and returns structure value from the function.   5
    (b) State the differences between union and structure.   5
    (c) Write a program that uses a pointer to access the numbers of a structure.   4

UNIT–V

9. (a) Explain various file handling operations.   5
    (b) Describe function overriding.   6
    (c) Explain the use of protected specifier.   3

10. (a) Describe exception handling.   6
    (b) What are private and public access specifiers?   3
    (c) What is the concept of inheritance? Explain any four types of inheritance.   1+4=5

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