CS – 493

III Semester B.C.A. Degree Examination, March 2023
(Y2K14) (CBCS) (Repeaters)
COMPUTER SCIENCE
BCA 303 : Object Oriented Programming Using C++

Time : 3 Hours

Max. Marks : 70

Instruction : Answer *all* the Sections.

SECTION – A

Answer **any ten** of the following. **Each** question carries **two** marks.   (10×2=20)

1. What are keywords ? Mention any two keywords.

2. Define object with syntax.

3. What is data encapsulation ?

4. What is function prototype ?

5. What is nesting of member function ?

6. Define constructor and destructor.

7. List the operators which cannot be overloaded.

8. What are access specifiers ?

9. Define inheritance.

10. Define pure virtual function.

11. What are templates ?

12. Define stream.

P.T.O.

SECTION – B

Answer **any five** of the following. **Each** question carries **ten** marks.   (5×10=50)

13. Explain the characteristics of object oriented programming in detail.   10

14. a) Explain manipulators with example.   5

    b) Mention the uses of scope resolution operator (::) in C++.   5

15. a) Write a C++ program to calculate area and circumference of circle using inline function.   5

    b) What are default arguments ? How are they passed to function ?   5

16. Explain different types of constructors with suitable example.   10

17. a) What are the rules followed to overload an operator in C++ ?   4

    b) Write a C++ program to explain the concept of unary operator overloading.   6

18. a) What is multiple inheritance ? Explain with suitable example program.   5

    b) Define polymorphism. Discuss different types of polymorphisms.   5

19. a) Explain about virtual function in C++ with example.   5

    b) Explain the different blocks in exception handling mechanism.   5

20. a) Write a short note on seekg( ), seekp( ), tellg( ), tellp( ) and getline( ) functions.   5

    b) Discuss file opening modes in detail.   5