Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 07

<div align="center">

B.Sc. (IT) (Sem.–3rd)
PROGRAMMING IN C++
Subject Code : BS-205
Paper ID : [B0411]

</div>

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students has to attempt any FOUR questions.**

<div align="center">

SECTION-A

</div>

l. Write briefly :

a. What is object oriented programming?

b. What is the use of header files in a program?

c. What is a void data type?

d. What is the difference between a variable and a keyword?

e. What is the use of continue statement?

f. What is a class and an object?

g. What is a friend function?

h. What is the use of scope resolution operator?

i. What is a random access file?

j. What is an abstract class?

SECTION B

2. Explain different operators available in C++ with use of each.

3. What is a constructor? What are different types of constructors in C++? Explain constructor overloading with an example.

4. Discuss and explain object oriented design and modeling in detail.

5. Write a program to create a class named SHAPE. Use this class to create other classes for different shapes. Write members of the classes to calculate area and perimeter of the shapes.

6. a) Write a short note on formatted input output in C++.

   b) How is a file created in C++? Write and explain different operations that can be performed on files.

7. a) Write a program to display all the prime numbers within a given range.

   b) Write a program to search a given character in a particular string.