

**B.Sc. (I. T.) Sem. - II (2011 Course) : WINTER - 2018**

**SUBJECT: OOP USING C++**

**Day:** Saturday  
**Date:** 24/11/2018

**W-2018-1098**

**Time:** 10.00 am to 12.00 Noon  
**Max. Marks: 40**

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**N.B:**

- 1) Attempt **ANY FIVE** full questions.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Explain Any Four features of object - oriented programming language. **(08)**  
Elaborate with examples using C++.

**Q.2 a)** What is meant by static member? What is the purpose of declaring a member as static? **(04)**

**b)** Explain the usage and limitations of a static class. Illustrate with C++ example. **(04)**

**Q.3 a)** What is meant by typecasting? Explain its various types with C++ examples. **(04)**

**b)** What is meant by operator overloading? Illustrate an example of unary operator overloading in C++. **(04)**

**Q.4 a)** Describe the purpose and usage of abstract class in C++, using code snippet example. **(04)**

**b)** Explain the various access specifiers used in C++. Also list out the default access specifier. **(04)**

**Q.5** Write a C++ program to demonstrate multiple and multi-level Inheritance. **(08)**  
Explain the C++ feature used and also indicate the output.

**Q.6** Write a C++ program to demonstrate use of friend function. Explain the C++ **(08)**  
feature used and also indicate the output.

**Q.7** Write a C++ program to demonstrate use of copy constructor. Explain the C++ **(08)**  
feature used and also indicate the output.

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