

**B.SC. (I. T.) SEM. - II (2011 COURSE) : WINTER - 2017**  
**SUBJECT: OOP USING C++**

**Day:** Tuesday  
**Date:** 26/12/2017

**Time:** 02.30 PM TO 04.30 PM  
**Max. Marks:** 40

**W-2017-0867**

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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** List out and explain Any Four differences between object - oriented and procedure - oriented language. Give appropriate examples. **(08)**
- Q.2** a) Describe the purpose and usage of constructor? Also explain the concept of copy constructor. **(04)**
- b) Describe the purpose and usage of destructor? Justify - Is it mandatory to write destructor in each class? **(04)**
- Q.3** a) What is meant by Polymorphism? How is it achieved in C++? **(04)**
- b) What is meant by Inheritance? Also explain multi-level inheritance in C++? **(04)**
- Q.4** a) What is meant by friend function? Describe the merits and demerits of using a friend function? **(04)**
- b) What is meant by function overloading? Illustrate using C++ example. **(04)**
- Q.5** Write a C++ program to demonstrate the use of virtual function. Explain the C++ feature used and also indicate the output. **(08)**
- Q.6** Write a C++ program to demonstrate use of private and protected access specifiers. Explain the C++ feature used and also indicate the output. **(08)**
- Q.7** Write a C++ program to demonstrate unary operator overloading (use any). Explain the C++ feature used and also indicate the output. **(08)**

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