

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00184

**Term-End Practical Examination**

**December 2014**

**BCSL-058(P)/S4 : COMPUTER ORIENTED NUMERICAL TECHNIQUES LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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- Note :** (i) *There are two questions in this paper, and both are compulsory.*  
(ii) *Each question carries twenty marks.*  
(iii) *Ten marks are reserved for viva-voce.*  
(iv) *The programs may be written in any **one** of the programming languages out of C, C++, MS-Excel or Spreadsheet.*
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1. Write a program to implement Bisection Method or Secant Method (only one of the methods) for finding out an approximate root of the equation  $x^2 + 5x + 6 = 0$ . You may make your own assumptions about starting values. 20
2. Write a computer program that implements Simpson's 1/3 formula to approximate the value of a definite integral. Further, use the program to approximate the value of 20

$$\int_2^7 (x^2 + 3x + 2) dx \text{ with } h = 1.0.$$

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