

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)****Term-End Practical Examination**

00864

June, 2017

**BCSL-058(P)/S3 : 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 20 marks.*  
(iii) *10 marks are reserved for viva-voce.*  
(iv) *The programs may be implemented 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 Secant method or Bisection method (only one of these) for finding an approximate value of a root of

$$x^2 - 13x + 40 = 0.$$

Make your own assumptions about bounds.

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2. Write a program to implement Simpson's (1/3) rule to approximate the value of a definite integral. Use it to approximate the value of

$$\int_2^4 \frac{dx}{(1+x^3)}, \text{ using three nodal points.}$$

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