

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

01723

**June, 2015****BCSL-058(P)/S2 : 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 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 calculate the value of Cosine of a given value of x in radians, using the following formula : 20

$$\cos x = 1 - (x^2/2!) + (x^4/4!) - (x^6/6!) + \dots$$

2. Write a program that implements Simpson's 1/3 formula to approximate the value of a definite integral. Further, use the formula to approximate the value of

$$\int_3^6 (2x^3 + 5x + 3) dx \quad \text{with } h = 1.0. \quad \text{20}$$

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