BACHELOR OF COMPUTER APPLICATIONS (Revised)
(BCA)

00924

Term-End Practical Examination

December, 2014

BCSL-058(P)/S1 : COMPUTER ORIENTED NUMERICAL TECHNIQUES LAB

Time : 1 Hour *Maximum Marks : 50*

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 calculate the value of Cosine of a given value x in radians, using the formula : *20*

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

2. Write a computer program that implements Trapezoidal rule for approximating the value of a definite integral. Use it to approximate the value of

$$\int_3^8 (2x^3 + 5x - 3)\,dx \text{ with } h = 1{\cdot}0. \qquad 20$$
