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

□1343

Term-End Practical Examination

December, 2016

BCSL-058(P)/S2 : 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 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.

1.   Write a program to implement Secant method or Bisection method (only one of the methods) for finding an approximate root of an equation. Use it to find a root of $5x^2 - 3x + 2 = 0$.   *20*

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

$$\int_{2 \cdot 3}^{2 \cdot 9} e^x \, dx, \text{ with } h = 0 \cdot 2.$$ *20*