BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA)

Term-End Practical Examination

00309

December, 2015

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 written in any **one** of the programming languages out of C, C++, MS-Excel or Spreadsheet.*

1.   Write a program to implement Bisection method for finding a positive root of the equation $x^2 - 5x - 36 = 0$. You have to make a suitable choice for the bounds.   *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

$$\int_{2 \cdot 3}^{2 \cdot 7} e^x \, dx, \text{ using } h = 0 \cdot 2.$$

20