BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA)

01076

Term-End Practical Examination

June, 2018

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)   *Rest 10 marks are reserved for viva-voce.*

   (iv)   *The programs may be implemented in any* **one** *of the programming languages C, C++, you can use any spreadsheet Software or MS-Excel.*

1. Write a program to implement Bisection Method to find a positive root of the equation, $x^2 + 2x - 3 = 0$, correct up to two decimal places. You may assume initial estimates as 0 and 3.   *20*

2. Write a program to implement Simpson's $(1/3)^{rd}$ rule to approximate the value of a definite integral given below :

$$I = \int_{0.2}^{1.0} x^{1/3} \, dx, \text{ using } h = 0.2.$$ *20*