# BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA) 

Term-End Practical Examination
December, 2016

BCSL-058(P)/S3 : COMPUTER ORIENTED NUMERICAL TECHNIQUES LAB

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 the Bisection method for finding a positive root of the equation $x^{2}+x-20=0$. Make a suitable choice for bounds.
2. Write a program to implement Simpson's $1 / 3$ formula to approximate the value of a definite integral. Use it to approximate the value of $\int_{2}^{4} d x /\left(1+x^{2}\right)$.
