

BACHELOR OF COMPUTER APPLICATIONS (Revised)
(BCA)

Term-End Practical Examination

December, 2017

01612

BCSL-058(P)/S2 : COMPUTER ORIENTED NUMERICAL TECHNIQUES LAB

Time : 1 Hour

Maximum Marks : 50

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- Note :** (i) *There are two questions in this paper and both are **compulsory**.*
(ii) *Each question carries 20 marks.*
(iii) *Rest 10 marks are for viva-voce.*
(iv) *The programs may be implemented in any **one** of the programming languages C or C++, or MS-Excel or any other Spreadsheet software.*
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1. Write a program to implement Bisection method to find a positive root of the equation $x^3 + 4x^2 - 10 = 0$, correct upto two decimal places. You may assume initial estimates as 1 and 2. 20
2. Write a program to implement Trapezoidal rule for approximating the value of a definite integral

$$I = \int_0^{0.8} \frac{dx}{\sqrt{1+x^2}}, \text{ using } h = 0.2. \quad 20$$
