

**BACHELOR OF COMPUTER APPLICATIONS (Revised)
(BCA)****Term-End Practical Examination****December, 2015****BCSL-058(P)/S4 : 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 obtain the value of e^2 correct upto four places of decimal using the series

$$e^x = 1 + x + (x^2 / \underline{2}) + (x^3 / \underline{3}) + \dots$$

where $\underline{n}$ denotes the factorial of n .

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2. Write a program to approximate the value of a definite integral using Trapezoidal rule and use it to approximate the value of

$$\int_4^8 (x^3 + 2x^2 + 7) dx, \text{ with } h = 1.0.$$

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