126193

Bachelor of Computer Application (Revised) (BCA) Term-End Examination December, 2018

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.

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1. Write a program in C/C++ to find the approximate value of roots of equation $x^2 - x - 2 = 0$, by using Secant method.   20

2. Write a program in C/C++ to calculate the value of "$\cos x$" by using the series expansion given below :   20

$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \ ....$$

Note : Evaluate $\cos x$ only upto first three terms.

Also find the value of $\cos x$ by using the inbuilt function.

Compare the results i. e., the result produced by your program and that produced by inbuilt function. Based on comparison, determine error.