2021

MATHEMATICS HONOURS

Paper: CC-14 Practical

VIVA

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Notations and symbols have their usual meaning.

Answer all questions: 1×5

1. Round-off the number 3.99R5 correct to four significant figures where R represents the last digit of your university roll number.

2. Prove that $E = 1 + \Delta$ where the symbols have their usual meanings.

3. Find the first approximation of a root of $x^3 + 3x - 1 = 0$ by Newton-Raphson method taking $x_0 = 0$, correct to two significant figures.

4. If $\dfrac{5}{6}$ be represented by 0.8333, find the relative error.

5. Show that E is a linear operator (E is the shift operator).