

## **Homework-1**

### **ICME MS5523 (2022)**

#### **Instructions:**

1. Copying is strictly not allowed and will lead to negative marks.
2. Late submission will lead to zero marks
3. Prepare answer scripts using “word or latex”, handwritten scripts are not allowed
4. The filename should be in the following format “Roll No\_HW1”.
5. The file should be in PDF format.
6. Attach the screenshots of MATLAB program and outputs in the answer script, also upload them separately.

**Q1.** What is your understanding about ICME? How do you think it can be implemented in the domain you are working? Explain using example.

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**Q2.** Explain vector, tensor, and basis using examples.

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**Q3.** Consider  $A =$  and  $B =$ , compute  $C$  using MATLAB such that

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**a)**  $A*B=C$

**b)** Consider the output as:  $C =$

Plot the output using MATLAB (take 01-04 as ordinates; use data plots of different colours)

**Q4)** Write a generic MATLAB code to solve system of linear algebraic equations.