"In the following questions retain at least **FIVE SIGNIFICANT DIGITS** in all arithmetic operations of your answers. Use rounding to the nearest to round all your approximations."

## 1 Theoretical Questions

**Question 1.** [Exercise Set 5.3 of the Textbook]

I. [3 marks] Solve Question 5.b.

II. [3 marks] Solve Question 7. (*Work on Question 5.b. only.*)

**Question 2.** [Exercise Set 5.4 of the Textbook]


II. [2 marks] Solve Question 5.


(*In Parts II-IV above work on Question 1.b. only.*)

## 2 MATLAB Question

**Question 1.** [4 marks] Solve Question 27 in Exercise Set 5.4 of the Textbook using Algorithm 5.2. (*Show the necessary MATLAB code and the outputs.*)