

# Take-Home Final Exam GUIDE

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**Pages:** 3 (including this one)

**Questions:** 6

**Total Marks:** 30

**Exam Conditions:**

This is a Take-Home Examination – **Submit your typed answers** to the questions provided via Turn-it-in submission on Blackboard. Pay close attention to the word or size limits to the answers.

**Instructions To Students:**

**You should attempt all questions.** You MUST show the steps used to arrive at your final solution. Best marks will be awarded to (numerically) correct solutions showing complete working. Partial credit will be given to partially complete solutions or to incorrect solutions where errors have been carried through calculations. Assumptions, if any, should be explicitly stated and justified/verified as appropriate. Best marks will be awarded to the ones most relevant to the course and the course material.

### Problem 1 (2 Marks)

*Requirements: Present your answer in less than ½ page A4 size, 12 pt with Normal (2.54 cm) margins (excluding figures or tables). Use tables via the word-processor if any are required.*

### Problem 2 (2 Marks)

*Requirements: Present your answer in less than ½ page A4 size, 12 pt with Normal (2.54 cm) margins (excluding figures or tables). Use tables via the word-processor if any are required.*

### Problem 3 (4 Marks)

*Requirements: Present your answer in less than 1 page A4 size, 12 pt with Normal (2.54 cm) margins (excluding figures or tables). Use tables via the word-processor if any are required.*

### Problem 4 (4 Marks)

*Requirements: Present your answer in less than 1 page A4 size, 12 pt with Normal (2.54 cm) margins.*

### Problem 5 (4 Marks)

*Requirements: Present your answer in less than 1 page A4 size, 12 pt with Normal (2.54 cm) margins.*

### Problem 6 (14 Marks)

Answer the following questions using dot points wherever possible (preferably numbered) and note assumptions made if any.

An application question to apply the theory learnt during the course across all modules:

#### **Mathematicians in SPAACCCEEEE!**

1. ...(Total 12 marks)
  - i. ... (2 marks)
  - ii. ... (4 marks)
  - iii. ... (2 marks)
  - iv. ... (2 marks)
  - v. ... (1 mark)
  - vi. ... (1 mark)
2. (2 marks)

*Requirements: Present your answer in less than 2 pages A4 size, 12 pt with Normal (2.54 cm) margins.*

**END OF EXAMINATION**