Sample Final Examination
Summer Semester, 2006

COURSE CODE  MATH1040
COURSE TITLE  BASIC MATHEMATICS
EXAMINER  MICHAEL JENNINGS
PERUSAL TIME  10 mins Writing permitted during perusal
NO. OF PAGES IN EXAM PAPER (including cover sheet)  21

WEIGHTING/MARKS  110 marks
WRITING TIME  2 Hrs 0 mins

Exam Type: Closed Book
Calculator: Yes - Non-programmable
Dictionary: No
Permitted Materials: Non-programmable calculator, pens, pencils, rubber, ruler

SPECIAL INSTRUCTIONS TO STUDENTS:
You will be issued with a single sheet of blank paper. During perusal, you may write on this
blank sheet, but not on the exam booklet. Do not write on the single sheet once perusal is
over. Your single sheet will be collected with your exam and will be destroyed (so material
written on that sheet will not be assessed). Each question carries the stated number of
marks, and part marks will be awarded for correct working. Write your answers in the space
provided. If you need extra room, use the back of other pages.

There are some formulae on the last page of this paper. You may detach this page.

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This sample exam shows you what to expect on your real exam. The number of marks for
each question is shown, along with some practice questions from your Study Guide which
cover the same topic. Note that the Study Guide contains worked solutions to all of the
questions. Your exam has the same cover sheet as this and has the same formulae at the
end. I think this is a very useful study guide!

<table>
<thead>
<tr>
<th>General Award Rules 1A.7 and 1A.8</th>
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<tbody>
<tr>
<td>1A.7 Responsibilities of students</td>
</tr>
<tr>
<td>1A.7.1 A student must comply with the examination instructions and directions given by an examination supervisor.</td>
</tr>
<tr>
<td>1A.7.2 A student may not enter an examination room without the permission of the examination supervisor, or after the first 10 minutes of examination working time.</td>
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<tr>
<td>1A.7.3 A student must not leave the examination room without the permission of the examination supervisor.</td>
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<tr>
<td>1A.7.4 Permission will not be granted under GAR 1A.7.3 during —</td>
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<tr>
<td>(a) the first 10 minutes of examination working time; and</td>
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<tr>
<td>(b) the final 10 minutes.</td>
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<tr>
<td>1A.7.5 (a) A student must bring into the examination some identification in the form of a current student card or other photogaphic identification.</td>
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<tr>
<td>(b) The identification must be displayed throughout the examination.</td>
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<tr>
<td>(c) Before the start of the examination, a student without identification must sign a declaration in a form set by the secretary and registrar.</td>
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<tr>
<td>(d) A student who does an examination without identification must produce identification at a location specified in writing by the secretary and registrar either generally or for that student.</td>
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<tr>
<td>(e) The university may withhold the results for an examination for a student who did not have identification at the examination until the student has produced identification under GAR 1A.7.5(d).</td>
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<tr>
<td>1A.7.6 Unless addressing a question to the examiner or examination supervisor, a student must not communicate in any way with another person during the examination.</td>
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<tr>
<td>1A.7.7 A student may bring unauthorised material into the examination room only if the material —</td>
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<tr>
<td>(a) is brought in with the permission of the examiner or examination supervisor; or</td>
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<tr>
<td>(b) is left with the examination supervisor immediately on entering the examination room.</td>
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<tr>
<td>1A.7.8 A student may remove examination books, scripts or material provided to the student during the examination only with the permission of the examination supervisor.</td>
</tr>
<tr>
<td>1A.8 Examination supervisors</td>
</tr>
<tr>
<td>1A.8.1 The examination supervisor may —</td>
</tr>
</tbody>
</table>
1. 10 parts, worth 1 mark each.
   a) p82 Q2a, p88 Q3a, p95 Q6a, p111 Q1a
   b) & c) p93 Q5, 6, p99 Q5, 6, p111 Q1b, c
   d) p111 Q1d, Assignment 6 Q4
   e) p94 Q1, p106 Q1
   f) p111 Q1f, Assignment 7 Q2a, b, c, e
   g) p111 Q1e. Also see your lecture notes.
   h) p111 Q1h, p118 Q10a, p124 Q10a, Assignment 7 Q3
   i) p87 Q23, .24, p93 Q3, p111 Q4a
   j) p93 Q17, p93 Q2, p111Q4b

2. 3 marks. p111 Q3, p117 Q5
3. 2 parts, worth 2 marks each. Assignment 6 Q3
4. 8 parts, worth 1 mark each. p111 Q2, p118 Q12, p124 Q13
5. 2 parts, worth 2 marks, 3 marks. p88 Q2, p95 Q3, p111 Q5, p117 Q6
6. 2 parts, worth 3 marks each. p111 Q6, p117 Q4, p123 Q5
7. 4 marks. p83 Q10, p95 Q4, p112 Q7
8. 2 parts, worth 3 marks each. p112 Q8, Assignment 6 Q1d, e. Also see your lecture notes.
9. 6 marks. p112 Q9, p119 Q15
10. 5 marks. p112 Q11, p117 Q1, p123 Q1
11. 3 parts, worth 1, 2 and 3 marks. p93 Q5, 6, p95 Q7, p112 Q12. Involves functions, absolute values and solving equations.
12. 4 parts, worth 3 marks, 3 marks, 3 marks, 3 marks. p112 Q13, p118 Q10c, 11, p124 Q10b, c, d, e, f
13. 7 marks. p112 Q14, p135 Q13, p140 Q12
14. 3 parts, worth 1 mark, 2 marks, 3 marks. p112 Q15, p119 Q14a, b, p125 Q15a
15. 2 parts, worth 5 marks, 3 marks. p119 Q13, p125 Q14, p131 Q14
16. 4 marks. p113 Q17, Assignment 7 Q5
17. 4 marks. Mystery question involving functions and derivatives. Try p113 Q18, p118 Q9, p124 Q12. Yours is a little different.
18. 6 marks. Mystery question – Part 2. Involves functions and derivatives. Try p113 Q18, p118 Q9, p124 Q12. Yours is a little different.

Have you read Page 80 of the Study Guide? It gives some good ideas on how to approach the exam.