

## FHS Mathematics and Statistics Examination Conventions 2007-2008 – Part A

### *Standardized marks*

The University wishes all examiners to adopt a uniform system of reporting marks. This means that each candidate will receive numerical marks in the range 1-100, such that

- a First Class performance is indicated by a mark of 70 to 100;
- an Upper Second Class performance is indicated by a mark of 60 to 69;
- a Lower Second Class performance is indicated by a mark of 50 to 59;
- a Third Class performance is indicated by a mark of 40 to 49;
- a Pass performance is indicated by a mark of 30 to 39;
- a performance at the level of a Fail is indicated by mark of 0 to 29.

There are four papers in Part A, all of 3 hours. In the order in which they will be taken, these are AC1, AC2, AS1 and AS2. At the end of the Part A examination, a candidate will be awarded four University standardised marks (USMs) for their performance in Part A. These will be awarded for a candidate's performance in:

- (i) AC1;
- (ii) AC2;
- (iii) AS1
- (iv) AS2

In order to arrive at such USMs, the examiners will mark and assess papers in the way described below.

### *Papers in Part A*

Questions on AC1 and AS1 are shorter and will be marked out of 10, while questions on AC2 and AS2 are longer and will be marked out of 25.

There will be 9 questions on paper AC1 and candidates should attempt them all. There will be 9 questions on paper AC2 and candidates may hand in answers to at most 5, from which the best 4 answers will be counted.

There will be 24 questions on paper AS1, 3 on Probability, 3 on Statistics, and otherwise 1 for each 8-lecture course and 2 for each 16-lecture course. Candidates may hand in answers to at most 10 questions, at least 5 of which should be on Probability and Statistics, and at least 4 of which should be on Options. The best 5 answers on Probability and Statistics, and the best 4 answers on other sections, will be counted towards the mark for this paper.

There will be 22 questions on paper AS2, 1 for each 8-lecture course and 2 for each 16-lecture course. Candidates may hand in answers to at most 5 questions, at least 2 of which should be on Probability and Statistics. The best 2 answers on Probability and Statistics, and the best 2 other answers (which may include further answers on Probability and Statistics), will be counted towards the mark for this paper. These details are repeated on the individual examination papers.

### *Marking of Papers*

Mark schemes for questions out of 10 will aim to ensure that the following qualitative criteria hold:

9-10 marks: a completely or almost completely correct answer, showing good understanding of the concepts and skill in carrying through arguments and calculations; minor slips or omissions only.

5-8 marks: a good though not complete answer, showing understanding of the concepts and competence in handling the arguments and calculations.

Mark schemes for questions out of 25 will aim to ensure that the following qualitative criteria hold:

20-25 marks: a completely or almost completely correct answer, showing excellent understanding of the concepts and skill in carrying through arguments and/or calculations; minor slips or omissions only.

13-19 marks: a good though not complete answer, showing understanding of the concepts and competence in handling the arguments and/or calculations. In this range, an answer might consist of an excellent answer to a substantial part of the question, or a good answer to the whole question which nevertheless shows some flaws in calculation or in understanding or in both.

### *USMs*

At the end of the Part A examination, a candidate will be awarded a University standardised mark (USM) on each of (i)-(iv), as above. The Examiners will recalibrate the raw marks to arrive at the USMs reported to candidates. In arriving at this recalibration, the examiners will principally take in to account the total sum over all four papers of the marks for each question, subject to the rules above on numbers of questions answered.

The examiners aim to ensure that all papers and all subjects within a papers are fairly and equally rewarded, but if in any case a paper, or subject within a paper, appears to have been problematical, then the examiners may take account of this in calculating USMs.

The USMs awarded to a candidate in Part A will be carried forward into the final classification after Part B.

Part A may be sat only once.

## Parts B and C

For the FHS Mathematics and Statistics in Parts B and C for examination in 2009 onwards the following apply.

Examinations for whole unit papers are of three hours duration and half unit papers are of one and a half hour duration.

### Aggregation of marks for award at Part B from 2009 onwards

All successful candidates will be awarded a classification at the end of three years, after the Part B examination.

A *strong paper rule* will be adopted for classification in 2009 onwards.

By the *nth class strong paper rule* we mean that for a candidate to be classified at the *n*th class standard, at least 3 papers from Parts A and B must lie in the *n*th class (or above) and at least one of these must be at Part B. For example, for a First class award, a candidate would need at least 3 of their whole unit paper USMs to be first class marks (with at least 1 first class whole unit at Part B) together with a weighted average score of parts A and B over 70.

Let  $A_v USM - \text{Part A \& B}$  = Average weighted USM in Parts A and B together;

The Part A USMs are given a weighting of 2 and the Part B USMs a weighting of 3 for a full unit and 1.5 for a half unit.

First Class	$A_v USM - \text{Part A \& B} \geq 70$ and the first class strong paper rule
Upper Second Class	$A_v USM - \text{Part A \& B} \geq 70$ and not satisfying the first class strong paper rule or $70 > A_v USM - \text{Part A \& B} \geq 60$ and the upper second strong paper rule satisfied
Lower Second Class	$70 > A_v USM - \text{Part A \& B} \geq 60$ and not satisfying the upper second strong paper rule or $60 > A_v USM \geq 50$ and the lower second strong paper rule satisfied
Third Class	$50 > A_v USM - \text{Part A \& B} \geq 40$ or $60 > A_v USM - \text{Part A \& B} \geq 50$ and not satisfying the lower second strong paper rule
Pass	$40 > A_v USM - \text{Part A \& B} \geq 30$
Fail	$A_v USM - \text{Part A \& B} < 30$ .

Half unit papers count as half a paper when determining the average USM or determining the number of strong papers.

**BA in Mathematics**

All candidates who wish to leave at the end of their third year and who satisfy the Examiners will be awarded a classified BA in Mathematics and Statistics at the end of Part B based on the above classification.

**MMath in Mathematics and Statistics in 2009 onwards**

In order to proceed to Part C, a candidate must minimally achieve lower second class Honours standard in Part A and Part B together.

Candidates successfully studying for a fourth year will receive a separate classification based on their University standardised marks in Part C papers according to the following rules:

The classification conventions for part C are:

- First class  $70 \leq \text{Av USM Part C}$
- Upper Second Class  $60 \leq \text{Av USM Part C} < 70$
- Lower Second Class  $50 \leq \text{Av USM Part C} < 60$
- Third class  $40 \leq \text{Av USM Part C} < 50$

A pass degree will not be awarded for Year 4. Candidates achieving

$\text{AvUSM Part C} < 40$  may supplicate for a BA.

Half unit papers count as a half a paper when determining the average USM.

Candidates leaving after four years who satisfy the Examiners will be awarded an MMaths in Mathematics and Statistics with two associated classifications.