

Oxford University Final Honour Schools Hilary Term 2007

Mathematics and Statistics Part B: Second Notice to Candidates

This circular contains information about:

1. standardized marks (USMs) and classification;
2. the format of papers in Part B;
3. the use of calculators and tables.

The full Regulations for the Part B examination are contained in the Examination Decrees and Regulations (the Grey Book; note that the 2004 edition also contain obsolete regulations about Part I and Part II).

The timetable for the examination will be set by the Examination Schools and they will send it to you. Timetabling is an extremely complicated process and once the timetable is published it cannot be changed. If you are unable to take a paper at the stipulated time for a religious or other compelling reason, you should ask your college to make the appropriate application on your behalf. Please do not ask the Examiners who are powerless in such matters.

A Third Notice will be sent out later with information about practical arrangements in the Examination Schools, including examination numbers, handing in of scripts and so on.

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Chairman of Examiners
Department of Statistics
March 2007

cc Senior Maths Tutors

FHS 2007 Mathematics and Statistics Part B: Marking of papers in Part B and Classification

Standardized Marks

The University instructs all examiners to adopt a uniform system of reporting marks. This means that each candidate will receive a numerical mark (USM) on each paper in the range 0-100, such that

- First Class performance (on that paper) is indicated by a mark of 70 or over;
- an Upper Second Class performance (on that paper) is indicated by a mark of 60 to 69;
- a Lower Second Class performance (on that paper) is indicated by a mark of 50 to 59;
- a Third Class performance (on that paper) is indicated by a mark of 40 to 49;
- a Pass performance (on that paper) is indicated by a mark of 30 to 39;
- a performance at the level of a Fail (on that paper) is indicated by a mark below 30.

In order to arrive at such standardized marks for each paper, the examiners will mark and assess papers in the way described below.

The Board of Examiners in Part B will assign USMs for full unit and half unit papers taken in Part B and they may recalibrate the raw marks to arrive at university standardized marks reported to candidates. The papers are designed so that the raw marks on a full unit sum to 100 and the raw marks on a half unit sum to 50. The USMs on both full units and half unit will be out of 100. However, Examiners will take into account the relative difficulty of papers when assigning USMs; in order to achieve this, Examiners may use information on candidates' performances on the Part A examination when recalibrating the raw marks. They may also use other statistics to check that the USMs assigned fairly reflect the students' performances on a paper.

In order to ensure fair treatment, Examiners may exercise individual consideration in assigning USMs for candidates whose marks lie outside the standard pattern, or when assigning USMs to papers where the number of candidates involved is small or untypical. The Examiners may also adjust USMs to take account of any special circumstances affecting individual candidates.

Classification

All candidates in the 3-year degree and the 4-year degree will receive a classification for a BA based on aggregated USMs from Parts A and B as follows.

The Part A University standardized marks (USMs) are given a weighting of 2, and the Part B USMs are given a weighting of 3 for a full-unit and 1.5 for a half-unit. The classification will flow from an average (AvUSM-Part A&B) of these weighted USMs for Parts A and B together. Here the weighted average AvUSM-Part A&B is rounded up to the nearest whole number. Borderlines are determined by the university standardized scale. The formulae for classification are as follows:

- **First Class:** $\text{AvUSM-Part A\&B} \geq 70$;
- **Upper Second Class:** $70 > \text{AvUSM-Part A\&B} \geq 60$;

- **Lower Second Class:** $60 > \text{AvUSM-Part A\&B} \geq 50$;
- **Third Class:** $50 > \text{AvUSM-Part A\&B} \geq 40$;
- **Pass:** $40 > \text{AvUSM-Part A\&B} \geq 30$;
- **Fail:** $\text{AvUSM-Part A\&B} < 30$.

Note : Half units count as a half paper when determining the weighted average.

The examiners aim to ensure that all papers are fairly and equally rewarded, but if in any case a paper appears to have been problematical, then the examiners, in their classification, will give special consideration to candidates taking that paper. The examiners will take particular care in assigning classes to those candidates whose marks fall near each Class boundary.

Candidates on the 3-year degree may supplicate for a BA degree at this stage and the classification awarded by the examiners will be determined by the above formulae.

A candidate who starts Part C (and to do so must have at least an Honours degree when classified at the end of Part B) but who decides not to complete the Part C examinations, may supplicate for a BA with the classification as awarded at the end of Part B based on Parts A and B.

Candidates who proceed to Part C will be classified for a second time at the MMath level. Successful candidates at Part C will thus be able to supplicate for an MMath degree with a double classification : one for parts A and B, and one for Part C.

FHS 2007 Mathematics and Statistics Part B: Format of Examination Papers

BS1 Applied Statistics (whole unit)

This is a 2 hour paper, with four questions on Michaelmas Term work and two questions on Hilary Term work. The rubric requires candidates to answer at most 4 questions, with the best three counting. Each question is marked out of 22 and the compulsory assessed practical is marked out of 34.

BS2 Statistical Inference (half unit)

This is a 1 hour 45 min paper, with four questions. Each question is marked out of 25. The rubric states: "Submit answers to a maximum of three questions. The best two answers will be counted".

BS3 Stochastic Modelling (whole unit).

This is a 3 hour paper, with four questions on Michaelmas Term work and four questions on Hilary Term work. Each question is marked out of 25. The rubric states "Submit answers to a maximum of five questions. Submit at least one answer in each section (half-unit) of the paper. The best answer in each section will count, along with the best two of the remaining answers".

The Michaelmas Term half of BS3 is available as the half unit BS3a (four questions). Each question is marked out of 25. The **half unit** paper lasts for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

BS4 Actuarial Science (whole unit)

This is a 3 hour paper, with three questions on Michaelmas Term work and three questions on Hilary Term work. Each question is marked out of 25. The rubric states: "Submit answers to a maximum of five questions. The best four will count".

Mathematics papers B1 - B10. These are whole unit papers, and each contains four questions on Michaelmas Term work and four questions on Hilary Term work. Most of these papers can also be taken as half unit papers either on Michaelmas Term work (four questions) or on Hilary Term work (four questions). Each question is marked out of 25.

The **whole unit** papers last for 3 hours, and the rubric states "Submit answers to a maximum of five questions. Submit at least one answer in each section (half-unit) of the paper. The best answer in each section will count, along with the best two of the remaining answers".

The **half unit** papers last for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

Mathematics paper B11

This is a half unit paper, containing four questions. Each question is marked out of 25. The papers last for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

BE Extended Essay (whole unit)

USM marks will be assigned to Extended Essays following the same principles as those used in the Mathematics and Statistics papers. In arriving at these marks, the relative weights attached to content, mathematics/statistics and presentation will be 1/4, 1/2 and 1/4, respectively.

The attention of candidates is drawn to the requirement to submit their own original work and to complete a certificate of originality when submitting their essays. Passages quoted or closely paraphrased from another

person's work must be identified as quotations or paraphrases, and the source of the quoted or paraphrased material must be clearly acknowledged. Failure to set a high standard in this respect could lead to a charge of plagiarism, with serious disciplinary consequences. Equally, if a student summarises another person's ideas, judgements, figures, software or diagrams, a reference to that person or the source should be made in the text and the source included in the bibliography.

Late submission or Failure to submit coursework

For the units below where coursework is a part of the assessment, candidates are asked to refer to the First Notice issued in January 2007 regarding the details governing late submission or failure to submit coursework.

Publication of marks distribution tables

The Examiners propose to publish marks distribution tables (i.e. tables showing the percentage of candidates achieving each average USM and above). The tables will be sent to each candidate and to tutors and Senior Tutors, and the information will also be published in the Examiners' Report.

Calculators and tables

Basic scientific calculators which have features such as exp and log, but which are NOT programmable, will be allowed for the papers BS1, BS2, BS3, BS3a, BS4, as well as B3, B7.1, B8, and B9. Any of the following will be permitted:

CASIO fx-82;
CASIO fx-83 (with any suffix, such as ES, MS) ;
CASIO fx-85 (with any suffix, such as ES, MS) or
CASIO fx_992 S;

SHARP EL-530 LB
SHARP EL-520
SHARP EL-531 (with any suffix).

Candidates' attention is drawn to a revision of the type of calculators examiners are permitting this year. Only calculators on the list above may be permitted.

For the other Mathematics papers, the use of calculators is not permitted.

Candidates should note that no calculators will be available in the examination room. New Cambridge Elementary Statistical Tables will be provided for use with papers BS1, BS2, BS3, BS3a, and BS4. These tables may be inspected in the Seminar Room, Department of Statistics, between 9 am and 12 noon on any weekday in Week 5 of Trinity Term.