# Oxford University Final Honour Schools Trinity Term 2016

# Mathematics and Computer Science Part A: First Notice regarding Mathematics Papers

- Full particulars about the syllabus and the examination are contained in the *Examination Decrees and Regulations* together with the relevant *Supplements* (including the Part A synopses) to the *Handbook for the Undergraduate Mathematics Courses*.
- I will write to you again later with information about the examination timetable and practical arrangements in the Schools, including information about examination numbers, handing in of scripts, and so on. I am expecting the examination to be held in weeks 8 and 9 in Trinity Term.
- A note about examination conventions relating to the marking of papers in Part A is attached. Your marks will be reported to you in the University's standard format which consists of a mark in the range 0-100 for each paper.
- The examiners are planning to hold their final meeting on Friday 8<sup>th</sup> July 2016, and hope to distribute results to Colleges soon afterwards.
- The Examiners in Computer Science will be communicating with you about the Computer Science papers in a separate notice.

Dr R. Knight Chair of Part A Examiners Mathematical Institute Prof. M. Goldsmith Chair of Examiners Final Honour Schools of Computer Science, Computer Science & Philosophy and Mathematics & Computer Science

Hilary Term 2016

Copy: Senior Computation Tutors Senior Mathematics Tutors

## 2016 Part A Mathematics and Computer Science:

## Marking of papers

### **Standardized Marks**

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

- a First Class performance (on that paper) is indicated by a mark of 70 to 100;
- 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 Fail performance (on that paper) is indicated by a mark of 0 to 29.

In order to arrive at such University standardized marks (or USMs) for each paper; the examiners will mark and assess papers in the way described below.

#### Mathematics Papers in Part A

There are two core papers A0 and A2, eight papers A3- A5 and A7-A11 relating to the Long Options, and paper ASO relating to the Short Options. Paper A0 is of 1.5 hours' duration and paper A2 is of three hours duration. All options papers are of 1.5 hours' duration.

You are required to offer A0, A2 and either two from A3-A5, A7-A11 or one of A3-A5, A7-A11 and ASO. In all papers, each question is worth 25 marks and you may submit as many questions as you wish.

#### Paper A0: Linear Algebra

This paper will contain 3 questions on Linear Algebra. The best two questions will count towards the total mark for the paper.

#### Paper A2: Metric Spaces and Complex Analysis

This paper includes 6 questions. The best four questions will count towards the total mark for the paper.

Each of the **Long Options** papers contain three questions, with the best two questions counting towards a candidate's total mark for the paper.

**Paper ASO** contains a single question on each of the Short Options. The best two questions will count towards the total mark.

You do not need to memorise these details. They will be repeated on the individual examination papers.

### **Marking of Papers**

Questions on all papers will be marked out of 25. Mark schemes 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 the 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. Such 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.

**7–12 marks:** Standard material has been substantially and correctly answered with some possible minor progress on to other parts of the question.

**0–6 marks:** Some progress has been made with elementary, accessible material.

This should be regarded as a guide conveying the intentions of the examiners.

#### USMs

At the end of the Part A examination, a candidate will be awarded a University standardised mark (USM) for each of the four Mathematics papers. 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 into account the total sum over all four papers of the marks for each question, subject to the rules above on numbers of questions answered, and the performance of the candidates in Part A Mathematics on the corresponding papers.

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

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

#### **Factors Affecting Performance**

The board of examiners will use the following procedure for the consideration of medical and other special circumstances transmitted to them via the Examinations and Assessments Section:

a) A subset of the board will meet to discuss the individual applications and band the seriousness of each application on a scale of 1-3 with 1 indicating minor impact, 2 indicating moderate impact, and 3 indicating very serious impact. When reaching this decision, examiners will take into consideration the severity and relevance of the circumstances, and the strength of the evidence. Examiners will also note whether all or a subset of papers were affected, being aware that it is possible for circumstances to have different levels of impact on different papers.

- b) The banding information will be used at the final Board of Examiners meeting to adjudicate on the merits of candidates;
- c) A brief, formal record will be kept confirming (i) the fact that information about special circumstances has been considered by the examiners, (ii) how that information has been considered, and (iii) the outcome of the consideration with the reasons for the decisions reached.

Further information on how to make an application for consideration of factors affecting performance in an examination is available at http://www.ox.ac.uk/students/academic/exams