

# Examiners' Report: Final Honour School of Mathematics & Philosophy Part B Trinity Term 2024

November 12, 2024

## Part I

### A. Statistics

- **Numbers and percentages in each class.**

See Table 1, page .

Table 1: Numbers in each class

|       | Number |        |        |        |        | Percentages % |         |        |         |         |
|-------|--------|--------|--------|--------|--------|---------------|---------|--------|---------|---------|
|       | 2024   | (2023) | (2022) | (2021) | (2020) | 2024          | (2023)  | (2022) | (2021)  | (2020)  |
| I     | 8      | (10)   | (6)    | (6)    | (8)    | 47.06         | (55.56) | (37.5) | (42.86) | (50)    |
| II.1  | 8      | (5)    | (8)    | (9)    | (5)    | 47.06         | (27.78) | (50)   | (57.14) | (31.25) |
| II.2  | 0      | (3)    | (2)    | (0)    | (3)    | 0             | (16.67) | (12.5) | (0)     | (18.75) |
| III   | 1      | (0)    | (0)    | (0)    | (0)    | 5.88          | (0)     | (0)    | (0)     | (0)     |
| P     | 0      | (0)    | (0)    | (0)    | (0)    | 0             | (0)     | (0)    | (0)     | (0)     |
| F     | 0      | (0)    | (0)    | (0)    | (0)    | 0             | (0)     | (0)    | (0)     | (0)     |
| Total | 17     | (18)   | (16)   | (15)   | (16)   | 100           | (100)   | (100)  | (100)   | (100)   |

- **Numbers of vivas and effects of vivas on classes of result.**

Not applicable.

- **Marking of scripts.**

All Philosophy scripts, essays and theses are double-marked, after which the two markers consult in order to agree a mark between them. If the two markers are unable after discussion to agree a mark, the mark is decided by a third marker, within the range of the two initial marks. All Mathematics scripts were, as is the normal practice, single-marked according to carefully checked model solutions and a pre-defined marking scheme closely adhered to. A comprehensive independent checking procedure is also followed. (See the Mathematics Part B report for details). BEE extended essays and coursework for BO1.1 History of Mathematics were double-marked.

**B. Changes in examining methods and procedures currently under discussion or contemplated for the future**

None.

**C. Notice of examination conventions for candidates**

The first Notice to Candidates was issued on 15 March 2023 and the second notice on 28 April 2023.

All notices and the examination conventions for 2024 are online at <http://www.maths.ox.ac.uk/members/students/undergraduate-courses/examinations-assessments>.

## **Part II**

### **A. General Comments on the Examination**

The examiners would like to record their heartfelt thanks to all those who helped in the preparation, administering, and assessing of this year's examinations. The chair would like to thank Rosalind Mitchell, Alice Jones, Charlotte Turner-Smith, Waldemar Schlackow, Matt Brechin and the rest of the academic administration team for their support of the Part B examinations.

The internal examiners are grateful to Prof. John Hunton and Dr Eleanor Knox for carrying out their duties as external examiners in such a constructive and supportive way during the year and for their thoughtful contributions during the final examiners' meetings.

For the most part, the examination process went smoothly this year. However, some issues did arise and these can and should be addressed during the 2024-25 cycle. For further comments, see Section E below.

### **Prizes**

The following prizes were awarded:

Gibbs Prize (performance in Mathematics papers): Kieran Dewalt, Merton College

Gibbs Prize (performance in Philosophy papers): Ami Chen, Queen's College

### **B. Equality and Diversity issues and breakdown of the results by gender**

Table 2, page shows percentages of male and female candidates for each class of the degree. The number of candidates is small enough that it would not be meaningful to examine the variation in the performance of men and women in this cohort.

### **C. Detailed numbers on candidates' performance in each part of the exam**

See Table 3, page for the number of candidates taking each Mathematics paper, together with statistics for the raw marks (average and standard deviation), and USMs (average and standard deviation) attained on each paper by this cohort. It should be noted that the total raw marks for a unit are 50 whilst the USMs are scaled to a maximum of 100. In accordance with University guidelines, statistics are not given for papers where the number of candidates was five or fewer.

Table 2: Breakdown of results by gender

[illegible]

Table 3: Statistics by paper (Mathematics papers)

| Paper  | Number of Candidates | AvgRaw | StdevRaw | Avg USM | StdevUSM |
|--------|----------------------|--------|----------|---------|----------|
| B1.1   | 17                   | 37.88  | 10.28    | 66.65   | 13.76    |
| B1.2   | 17                   | 33.88  | 8.72     | 65.12   | 8.8      |
| B2.1   | 4                    | 27.25  | 4.57     | 65.25   | 3.77     |
| B2.2   | 1                    | 15     | -        | 56      | -        |
| B3.1   | 2                    | 29     | 11.31    | 62      | 9.9      |
| B3.2   | 4                    | 39.5   | 3.11     | 73      | 4.69     |
| B3.3   | 2                    | 39     | 9.9      | 75.5    | 14.85    |
| B3.4   | 3                    | 37     | 7        | 69      | 6.56     |
| B3.5   | 6                    | 29.17  | 8.04     | 66.17   | 8.52     |
| B4.1   | 5                    | 24     | 9.51     | 69.8    | 10.8     |
| B4.2   | 5                    | 27.8   | 9.28     | 70.8    | 10.43    |
| B8.1   | 5                    | 29.8   | 9.15     | 69.8    | 9.44     |
| B8.2   | 2                    | 33     | 8.49     | 70      | 5.66     |
| B8.4   | 4                    | 26.5   | 9.29     | 59.5    | 11.39    |
| B8.5   | 4                    | 28     | 6.16     | 62      | 6.16     |
| SB2.1  | 1                    | 46     | -        | 90      | -        |
| SB2.2  | 1                    | 48     | -        | 95      | -        |
| SB3.1  | 3                    | 29.67  | 9.5      | 71.33   | 10.07    |
| BO1.1  | 1                    | -      | -        | 87      | -        |
| BO1.1X | 1                    | -      | -        | 79      | -        |
| BEE    | 2                    | -      | -        | 78      | 2.83     |

See Table 4, page for the number of candidates taking each Philosophy paper, together with statistics for the USMs (average and standard deviation) attained on each paper by this cohort. In accordance with University guidelines, statistics are not given for papers where the number of candidates was five or fewer.

Table 4: Statistics by paper (Philosophy papers)

| Paper | Number of<br>Candidates | Avg<br>USM | StDev<br>USM |
|-------|-------------------------|------------|--------------|
| 101   | 5                       | 59.4       | 7.37         |
| 102   | 12                      | 67.58      | 4.68         |
| 103   | 1                       | 72         | -            |
| 104   | 1                       | 65         | -            |
| 107   | 2                       | 63         | 5.66         |
| 108   | 2                       | 66.5       | 6.36         |
| 109   | 2                       | 47         | 25.46        |
| 113   | 1                       | 62         | -            |
| 114   | 1                       | 68         | -            |
| 118   | 2                       | 65         | 1.41         |
| 122   | 17                      | 65.71      | 7.36         |
| 127   | 8                       | 71.34      | 2.97         |
| 301   | 1                       | 67         | -            |
| PT    | 1                       | 60         | -            |

## **D: Comments on papers and individual questions**

See reports from Mathematics Examiners and from Philosophy Examiners.

## **E. Comments and Recommendations from the Examination Board**

1. There was one embarrassing instance of a candidate being incorrectly classed. This was later resolved on appeal. Maths and Philosophy is particularly vulnerable to errors of this kind as the databases for the two subjects are inspected only visually at the final meeting – there is no automatic assignment of a classification. We recommend that, to avoid a repeat of this, an additional failsafe be added to the process, such as a confirmed final copy of the classifications being available for the examiners to check at the end of the final meeting.
2. The examiners found that there was a surprising lack of information available to them concerning the criteria for the awarding of prizes. Further information in an easily-accessible form would be very useful in subsequent years.
3. The discussion of weightings in the Maths and Philosophy documentation - Mathematics and Philosophy Examination Conventions Section 8.2 could be clearer. In particular if the candidate takes  $k = 3$  mathematics papers then the mathematics contributions of their marks in Part A : Part B will not be weighted 2:3 .

## **F. Names of members of the Board of Examiners**

Prof. Ben Green (chair)

Dr James Studd

Dr Oliver Pooley

Prof. Jochen Koenigsmann

Prof. John Hunton (external)

Dr Eleanor Knox (external)