# Examiners' Report: Final Honour School of Mathematics \& Philosophy Part B Trinity Term 2021 

January 28, 2022

## Part I

## A. Statistics

## - Numbers and percentages in each class.

See Table 1, page 1.

Table 1: Numbers in each class

|  | Number |  |  |  |  | Percentages \% |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2021 | $(2020)$ | $(2019)$ | $(2018)$ | $(2017)$ | 2021 | $(2020)$ | $(2019)$ | $(2018)$ | $(2017)$ |
| I | 6 | $(8)$ | $(4)$ | $(6)$ | $(6)$ | 42.86 | $(50)$ | $(30.77)$ | $(50)$ | $(46.15)$ |
| II.1 | 9 | $(5)$ | $(8)$ | $(5)$ | $(7)$ | 57.14 | $(31.25)$ | $(61.54)$ | $(41.67)$ | $(53.85)$ |
| II.2 | 0 | $(3)$ | $(1)$ | $(2)$ | $(0)$ | 0 | $(18.75)$ | $(7.69)$ | $(8.33)$ | $(0)$ |
| III | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ |
| P | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ |
| F | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ | 0 | $(0)$ | $(0)$ | $(0)$ | $(0)$ |
| Total | 15 | $(16)$ | $(13)$ | $(13)$ | $(13)$ | 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. New examining methods and procedures in the 2021 examinations

In light of the ongoing Covid 19 pandemic, the examinations were conducted using the same online open-book format previously used in the 2020 examinations. However, a different online platform, Inspera, was used. Candidates could complete papers requiring essay answers using Inspera's built-in text editor. These essays were automatically submitted at the end of the exam time window. Candidates taking papers requiring hand-written answers had to upload a scan of their script to Inspera. Candidates were granted an additional 30 minutes "technical time" for scanning and uploading. Inspera would not accept uploads after the end of the exam time window (as extended by the extra 30 minutes). Candidates had a further 5 minute "grace period" during which they could submit their scans via the Online Exams Support Desk instead without attracting a penalty.

The University introduced an assessment support package for 2021 in place of the "safety net" policies used in 2020. This comprised two main elements: a marks safeguard and an outcomes safeguard.

Under the marks safeguard, examiners were required to add or subtract marks to bring the median mark for each paper in 2021 to within 2 marks of the median mark for the years 2017 to 2019. No action was required by the Mathematics \& Philosophy examiners as other boards were responsible for the scaling of individual papers.

Under the outcomes safeguard, examiners were encouraged to compare the distribution of overall outcomes with those from 2017 to 2019, and in particular to ensure that the proportion of first class degrees awarded was not lower than the mean for the years 2017 to 2019. The examiners decided that no adjustments should be made, as the proportion of firsts awarded was already slightly above the mean for 2017 to 2019.

## C. Changes in examining methods and procedures currently under discussion or contemplated for the future

The department decided that exams will be in person for Trinity Term 2022.

## D. Notice of examination conventions for candidates

The first Notice to Candidates was issued on 19 March 2021 and the second notice on 11 May 2021.

All notices and the examination conventions for 2021 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 are very grateful to James Knight in the Philosophy Faculty and Elle Styler, Waldemar Schlackow, Charlotte Turner-Smith, and the rest of the academic administration team in the Mathematical Institute for their enormous help at all stages in the conduct of this examination. We are grateful also to examiners and assessors in Philosophy and in Mathematics who set papers and marked scripts and essays of candidates in this examination.
The internal examiners are grateful to the external examiners Prof. Marco Schlichting (Mathematics) and Prof. Karim Thebualt (Philosophy) for generously performing their special roles in this process.

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

Table 2, page 3 shows percentages of male and female candidates for each class of the degree.

Table 2: Breakdown of results by gender

| Class | Number |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  |  | 2020 |  |  | 2019 |  |  |
|  | Female | Male | Total | Female | Male | Total | Female | Male | Total |
| I | 1 | 5 | 6 | 2 | 6 | 8 | 2 | 2 | 4 |
| II. 1 | 4 | 5 | 9 | 4 | 1 | 5 | 3 | 5 | 8 |
| II. 2 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 1 | 1 |
| III | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 5 | 10 | 15 | 7 | 9 | 16 | 5 | 8 | 13 |
| Class | Percentage |  |  |  |  |  |  |  |  |
|  | 2021 |  |  | 2020 |  |  | 2019 |  |  |
|  | Female | Male | Total | Female | Male | Total | Female | Male | Total |
| I | 20 | 55.56 | - | 28.57 | 66.67 | 47.62 | 40 | 25 | 30.77 |
| II. 1 | 80 | 44.44 | - | 57.14 | 11.11 | 34.13 | 60 | 62.5 | 61.54 |
| II. 2 | 0 | 0 | 0 | 14.29 | 22.22 | 18.26 | 0 | 12.5 | 7.69 |
| III | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

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

See Table 3, page 4 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 3: Statistics by paper (Mathematics papers)

| Paper | Number of Candidates | AvgRaw | StdevRaw | Avg USM | StdevUSM |
| :--- | :--- | :--- | :--- | :--- | :--- |
| B1.1 | 14 | 41.57 | 5.14 | 74.64 | 11.04 |
| B1.2 | 14 | 34.43 | 9.01 | 66.43 | 7.43 |
| B2.1 | 5 | - | - | - | - |
| B2.2 | 5 | - | - | - | - |
| B3.1 | 4 | - | - | - | - |
| B3.2 | 3 | - | - | - | - |
| B3.4 | 3 | - | - | - | - |
| B3.5 | 6 | 32.17 | 9.5 | 63.67 | 12.26 |
| B4.1 | 2 | - | - | - | - |
| B8.1 | 3 | - | - | - | - |
| B8.5 | 3 | - | - | - | - |
| SB3.1 | 1 | - | - | - | - |

See Table 4, page 5 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 Early Modern Philosophy | 3 | - | - |
| 102 Knowledge and Reality | 13 | 65.08 | 18.66 |
| 103 Ethics | 3 | - | - |
| 104 Philosophy of Mind | 1 | - | - |
| 107 Philosophy of Religion | 3 | - | - |
| 108 The Philosophy of Logic and Language | 1 | - | - |
| 109 Aesthetics and Philosophy of Criticism | 1 | - | - |
| 112 The Philosophy of Kant | - | - | - |
| 113 Post-Kantian Philosophy | 2 | - | - |
| 114 Theory of Politics | - | - | - |
| 116 Aristotle: Nicomachean Ethics | 16 | 64.94 | 4.06 |
| 122 Philosophy of Mathematics | - | - | - |
| 124 Philosophy of Science | 9 | 61.33 | 23.67 |
| 127 Philosophical Logic | 1 | - | - |
| 129 Early Modern Philosophy |  |  |  |

## D: Comments on papers and individual questions

See reports from Mathematics Examiners and from Philosophy Examiners.

## E. Comments on performance of identifiable individuals and other material which would usually be treated as reserved business

## 1. Mitigating Circumstance Notices to Examiners

The full board of examiners considered 7 notices. All of the decisions, and the reasoning behind them, have been recorded as required.

All penalties for late submissions were waived, whether or not notices were received.
All candidates with certain conditions (such as dyslexia, dyspraxia, etc.) were given special consideration in the conditions and/or time allowed for their papers, as agreed by the Proctors. Each such paper was clearly labelled to assist the assessors and examiners in awarding fair marks.

## 4. Issues for Teaching Committee to Consider

## - Classification conventions

The classification conventions are symmetrical between the Mathematics average ( $M$ ) and the Philosophy average $(P)$. There was some discussion among the examiners to the effect that it was much more common to achieve a first with $M \geq 70$ than with $P \geq 70$, and that other joint schools with Philosophy would award firsts with $P \geq 69$. It is rare for Philosophy assessors to award marks much above 70 , so candidates cannot expect to achieve $P \geq 70$ using marks above 70 to offset marks below 70. The equivalent statement is not true for Mathematics papers. Two of this year's candidates achieved $M \geq 80$, but noone achieved $P \geq 71$.

Recommendation: That the Joint Committee should consider whether the symmetrical classification conventions should be adjusted in the light of the asymmetrical distributions of marks between Mathematics and Philosophy papers.

## - Inspera and late submission

The University policy was that all candidates who uploaded their scripts more than 5 minutes late would receive a mark of 0 for the paper unless the examiners waived the late submission penalty. Penalties could only apply to papers requiring handwritten answers and scanning. Essays written in Inspira's built-in text editor were automatically submitted at the end of the examination.

Several candidates were caught out by the need to use an entirely different submission system, the Online Exams Support Desk, instead of Inspera during the 5 minute grace
period.
Despite this, no submission was more than 9 minutes late. The disparity between modes of submission struck the examiners as unfair, so they waived all late submission penalties.
The manual process of matching late submissions with individual MCEs, a separate MCE for each late submission, was prone to errors. Examiners could not be confident that there was no MCE for any given late submission, and therefore could not be "satisfied that there are no valid reasons for late submission" as required to apply penalties under the Framework.

## - Inspera and papers with multiple questions

Inspera did not support essay papers with more than 11 questions. One Philosopy paper contained 12 questions, with instructions to candidates to answer question 12 in the tab for question 11, and below the answer to question 11, if attempted. One candidate was sufficiently concerned that their answer to question 12 would be lost that they submitted an MCE.
Recommendation: This defect in Inspera should be corrected.

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

Dr Paul Dellar (chair)
Prof. Peter Millican
Prof. Kevin McGerty
Prof. Simon Saunders
Prof. Marco Schlichting (external)
Prof. Karim Thebault (external)

