

Examiners' Report
Oxford Masters in Mathematical Sciences (OMMS)
Trinity Term 2022

Part I

A. STATISTICS

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

See Table 1, page 1.

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

Not applicable.

- **Marking of scripts.**

All Mathematics examination scripts were, as is the normal practice, single-marked according to carefully checked model solutions and a pre-defined marking scheme which is closely adhered to. The Mathematics dissertations and mini-projects were double-marked. A comprehensive independent checking procedure is also followed. (See the Part C Mathematics Examiner Report for details.)

Table 1: Numbers in each class

	Number				Percentages %			
	2022	2021	2020	2019	2022	2021	2020	2019
Distinction	24	21	27	16	42.86	40.38	65.85	50.0
Merit	18	9	7	6	32.14	17.31	17.07	18.8
Pass	13	21	5	9	23.21	40.38	12.2	28.1
DDM	-	-	2	-	-	-	4.88	-
Fail	1	1	0	1	1.79	1.92	0	3.1
Total	56	52	41	32	100	100	100	100

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

None, apart from the phasing out of summary sheets, as is already planned by the Department. The summary sheets were introduced this year as a way to ease students back into taking in-person exams following two years of online closed book examinations due to the covid-19 pandemic. Students were allowed to take an A4 summary sheet of notes into each exam.

It might also be considered that the scaling meeting could come closer to the final version of scaling, in advance of the final examiners meeting.

C. Notice of examination conventions for candidates

The first notice to candidates was issued on 25th March 2022 and the second notice on 11th May 2022. These contain details of the examinations and assessments.

All notices and the examination conventions for 2022 are available online at:

<https://www.maths.ox.ac.uk/members/students/undergraduate-courses/teaching-and-learning/part-c-students/examinations-and-assessments/part-c-and-omms>

Part II

A. General Comments on the Examination

The examiners would like to convey their grateful thanks for their help and cooperation to all those who assisted with this year's examination, either as assessors or in an administrative capacity. The chairman would like to thank Anwen Amos, Clare Sheppard, Charlotte Turner-Smith, Waldemar Schlackow, Matt Brechin, Jonathan Whyman, Hannah Harrision and the rest of the academic administration team for their support of the Part C and OMMS examinations.

In addition the internal examiners would like to express their gratitude to Prof Alan Champneys, Prof James Robinson and Prof Dario Spaño for carrying out their duties as external examiners in a constructive and supportive way during the year, and for their valuable input at the final examiners' meetings.

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

Table 2, page 4 shows percentages of male and female candidates for each class of the degree.

Table 2: Breakdown of results by gender

Class	Number											
	2022			2021			2020			2019		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Distinction	1	23	24	0	21	21	5	22	27	4	12	16
Merit	1	17	18	4	5	9	3	4	7	1	5	7
Pass	6	7	13	4	17	21	1	4	5	3	6	9
DDM	-	-	-	-	-	-	0	2	2	-	-	-
Fail	0	1	1	1	0	1	0	0	0	0	1	1
Total	8	48	56	9	43	52	9	32	41	8	24	32
Class	Percentage											
	2022			2021			2020			2019		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Distinction	12.5	47.92	42.86	0	48.84	48.84	55.56	68.75	62.16	50.0	50.0	50.0
Merit	12.5	35.42	32.14	44.44	11.63	28.04	33.33	12.5	22.92	12.5	20.8	18.8
Pass	75	14.58	23.21	44.44	39.53	41.99	11.11	12.5	11.81	37.5	25.0	28.1
DDM	-	-	-	-	-	-	0	6.25	6.25	-	-	-
Fail	0	2.08	1.79	11.11	0	11.11	0	0	0	0	4.2	3.1
Total	100	100	100	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. All papers listed are units except the Mathematics Dissertation, which is a double unit. The total maximum raw marks for a unit is 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 in the public version of this report.

Table 3: Statistics by paper

Paper	Number of Candidates	AvgRaw	StdevRaw	AvgUSM	StdevUSM
C1.1	-	-	-	-	-
C1.3	11	29.45	6.82	67.18	7.83
C1.4	-	-	-	-	-
C2.1	-	-	-	-	-
C2.2	10	25.7	11.3	66.6	18.63
C2.3	-	-	-	-	-
C2.4	-	-	-	-	-
C2.5	-	-	-	-	-
C2.6	6	26.17	12.86	71.83	15.55
C2.7	8	32.25	7.85	71.25	8.21
C3.1	8	29	16.44	68.12	25.09
C3.3	6	27.17	5.74	67.33	5.96
C3.4	8	30.12	11.03	71.38	14.97
C3.5	-	-	-	-	-
C3.7	-	-	-	-	-
C3.8	6	25.83	10.46	67.17	9.83
C3.10	-	-	-	-	-
C3.11	-	-	-	-	-
C3.12	-	-	-	-	-
C4.1	7	24.14	6.28	68	8.49
C4.3	8	28	7.35	68.25	12.16
C4.6	6	35.67	6.5	73.17	10.23
C4.8	-	-	-	-	-
C4.9	-	-	-	-	-
C5.1	-	-	-	-	-
C5.2	-	-	-	-	-
C5.5	-	-	-	-	-
C5.6	-	-	-	-	-
C5.7	-	-	-	-	-
C5.9	-	-	-	-	-
C5.11	-	-	-	-	-
C5.12	-	-	-	-	-
C6.1	16	25.81	5.74	66.5	9.59
C6.2	15	32.53	5.14	66.67	8.56

Paper	Number of Candidates	AvgRaw	StdevRaw	AvgUSM	StdevUSM
C6.3	8	26	6.95	57	9.27
C6.4	-	-	-	-	-
C7.4	-	-	-	-	-
C7.5	-	-	-	-	-
C7.7	8	33.88	6.38	66.5	11.4
C8.1	9	29.67	6.46	68.44	10.09
C8.2	8	20.12	4.09	57.86	5.58
C8.3	12	27.58	8.98	60.58	13.56
C8.4	7	27.71	7.27	60.86	11.55
C8.6	-	-	-	-	-
SC1	7	36.86	6.91	70.71	11.27
SC2	9	34.89	8.68	66.22	12.6
SC4	14	25.64	6.56	62.71	7.63
SC5	6	25.5	5.58	65.83	6.27
SC6	-	-	-	-	-
SC9	-	-	-	-	-
SC10	-	-	-	-	-

Table 3: Statistics by paper (USM only assessments)

Paper	Number of Candidates	AvgUSM	StdevUSM
C3.9	10	73	12.81
C5.4	20	71.15	6.71
C6.5	17	64	5.4
CCD	54	72.19	13.61
COD	-	-	-
SC8	8	77.375	4
CCS1	-	-	-
CCS2	6	67.17	3.54

D. Recommendations for Next Year's Examiners and OMMS Supervisory Committee

The external examiners suggested that guidance would be helpful to assessors to check that exams are not overlong. There could also be some discussion, in conjunction with Teaching Committee, about some amount of moderation of marking across Dissertation topics.

There could also be consideration of increasing the OMMS prizes to match the amounts of the Part C prizes. It could also be considered to relax the classification cap on resits.

E. Comments on sections and on individual questions

See reports from Mathematics examiners.

F. Names of members of the Board of Examiners

Internal Examiners:

Prof. Victor Flynn (Chair)

Prof. Dino Sejdinovic

Prof. Dominic Joyce

Prof. Eamonn Gaffney

Prof. James Martin

Prof. Jason Lotay

Prof. Qian Wang

External Examiners:

Prof. Richard Jozsa

Prof. James Robinson

Dr. Dario Spanó