



Examination Report

Part 1 Fellowship of the Royal College of
Ophthalmologists (FRCOphth) Examination

January 2023

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1 Summary

The Part 1 Fellowship of the Royal College of Ophthalmologists (FRCOphth) examination took place in January 2023. A total of 169 candidates sat the examination, of which 60 (35.5%) fulfilled the criteria required to pass the examination overall.

The multiple-choice question (MCQ) exam showed excellent reliability, with an alpha of $\alpha=0.87$.

2 Multiple choice question (MCQ) paper

The table below gives the paper contents by subject area, compared with previous exam diets / years.

Table 1: MCQ paper content

Date of Exam	Anatomy/embryology	Optics	Pathology	Pharmacology & genetics	Physiology	Miscellaneous	Investigations	Total
Jan-23	26	48	32	14	17	27	16	180
Oct-22	27	32	28	26	22	19	24	178*
Apr-22	27	32	27	26	22	19	21	174*
Jan-22	25	31	28	26	23	19	24	176*
Apr-21	26	32	27	26	23	20	24	178*
Jan-21	27	32	27	17	22	24	20	177*
Oct-20	24	24	23	18	23	8		120
Jan-20	24	24	23	18	23	8		120
Oct-19	24	23	23	18	23	8		119*
Apr-19	24	24	22	18	23	8		119*
Jan-19	22	24	23	18	22	8		117*
Oct-18	24	24	23	18	23	8		120
May-18	24	24	23	18	23	8		120
May-17	24	24	23	18	23	7		119*
Jan-17	24	24	22	18	23	8		119*
Oct-16	24	24	23	18	23	8		120
May-16	24	24	22	18	23	8		119*
Jan-16	24	23	23	18	23	8		119*
Oct-15	24	24	23	18	23	8		120
May-15	24	24	23	18	23	8		120
Jan-15	24	24	23	18	23	8		120
Oct-14	24	24	23	18	23	8		120

* = questions removed

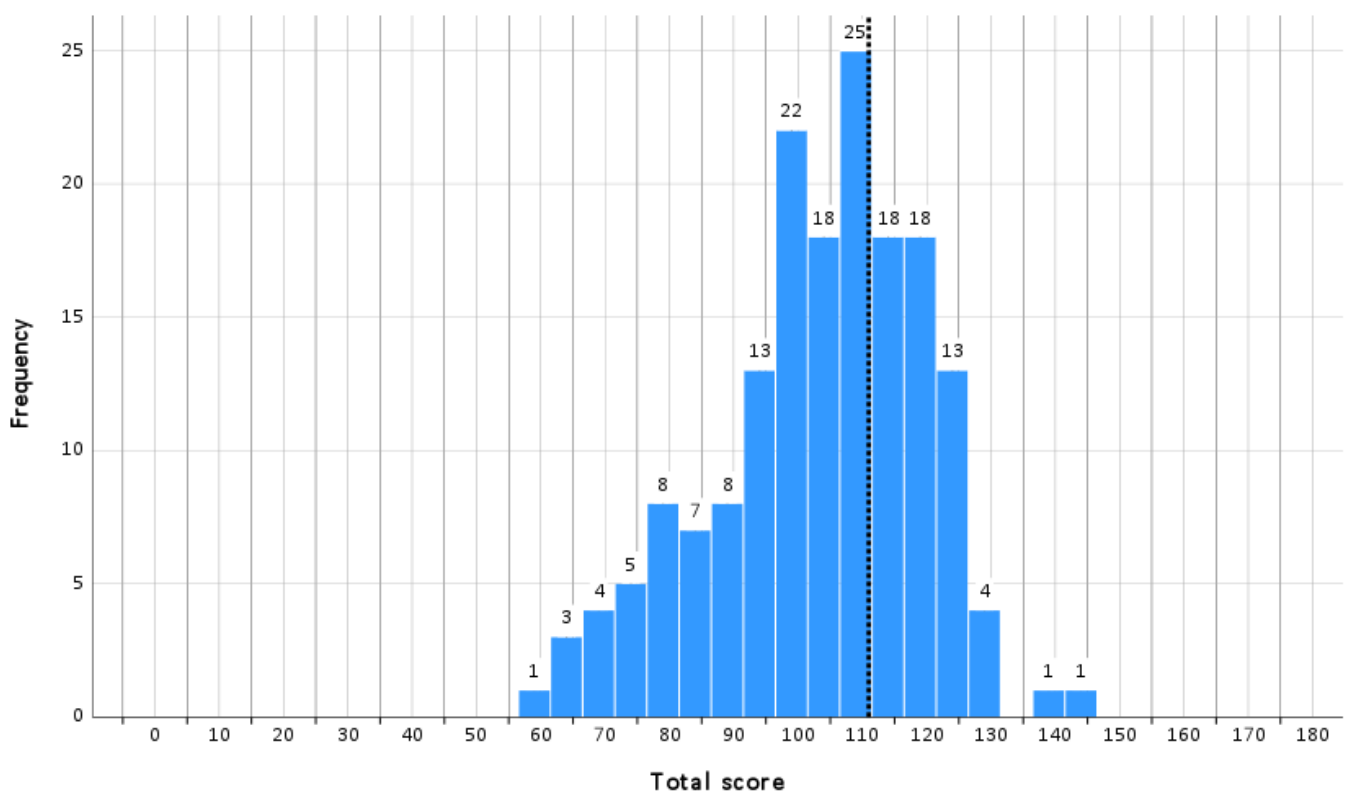
The MCQ paper was lengthened from 120 to 180 questions for the first time in Jan 2021, largely by increasing the number of Investigations and Miscellaneous items, making the breakdown of the two categories' items more important than it has been historically.

2.1 Paper statistics

Table 2: MCQ paper summary statistics

Statistic	Value	Percentage
Mean score	103/180	57.2%
Median score	106/180	58.9%
Standard deviation	16.3	9.1%
Candidates	169	
Reliability: Cronbach's alpha	0.87	
Standard error of measurement (SEM)	5.88	3.3%
Range of marks	59 - 144	
Pass mark derived from standard setting	111/180	61.7%
Pass mark - 1 SEM (rounded)	105/180	58.3%
Pass rate	60/169	35.5%

Figure 1: Histogram showing distribution of total scores – MCQ



The vertical dotted line denotes the point of the score distribution where the pass mark lies.

2.2 Quality of questions

Item analysis data allows us to identify easy, moderate and difficult questions, and those which are good, poor or negative discriminators. Optimally, all questions should be moderately difficult and good discriminators.

Table 3: MCQ paper quality

			33% Discrimination							
			Negative		Poor		Good		Total	%
			<0		0-0.249		≥0.250			
			Number	%	Number	%	Number	%		
Facility	Difficult	<25%	6	3.3	8	4.4	0	0.0	14	7.8
	Moderate	25–75%	8	4.4	73	40.6	42	23.3	123	68.3
	Easy	≥75%	4	2.2	35	19.4	4	2.2	43	23.9
	Total		18	10.0	116	64.4	46	25.6	180	100

2.3 Standard setting

The pass mark for the paper was agreed using the Ebel method.

Table 4: MCQ Ebel categories - items per category

	Difficult	Moderate	Easy	Total
Essential	2	23	81	106
Important	3	32	25	60
Supplementary	2	6	6	14
Total	7	61	112	180

The Part 1 FRCOphth subcommittee considered the success of a minimally competent candidate in each category as below:

Table 5: MCQ Ebel categories – expert decision

	Difficult	Moderate	Easy
Essential	0.55	0.65	0.75
Important	0.45	0.50	0.55
Supplementary	0.25	0.25	0.25

Table 6: MCQ Ebel categories – items per category X expert decision

	Difficult	Moderate	Easy	Total
Essential	1.00	15.00	61.00	77.00
Important	1.00	16.00	14.00	31.00
Supplementary	1.00	1.00	1.00	3.00
Total	3.00	32.00	76.00	111.00

The MCQ pass mark was 111/180 (62%).

Table 7: Comparison of pass marks and rates for previous MCQ papers

Year	Candidates	Mean score	Reliability	SEM	Standard setting	Pass mark	33% discrimination			Facility			Number of questions	Pass number (rate - rounded)
			(KR 20)				Negative	Poor (0-0.249)	Good (>0.250)	Difficult (<25%)	Moderate	Easy (>75%)		
Jan-23	169	103	0.87	5.88	Ebel	111 (62%)	18	116	46	14	123	43	180	60 (36%)
Oct-22	340	111	0.91	5.67	Ebel	115 (65%)	10	77	91	10	107	61	178	163 (48%)
Apr-22	253	102	0.9	5.76	Ebel	112 (64%)	9	90	75	7	122	45	174	84 (33%)
Jan-22	160	102	0.89	5.73	Ebel	111 (63%)	19	84	73	15	111	50	176	56 (35%)
Apr-21	227	107	0.89	5.73	Ebel	112 (63%)	12	97	69	9	110	59	178	95 (42%)
Jan-21	149	107	0.89	5.63	Ebel	116 (66%)	7	105	65	15	108	54	177	51 (34%)
Oct-20	365	77	0.87	4.56	Ebel	73 (61%)	6	63	51	8	63	49	120	240 (66%)
Jan-20	130	60	0.97	4.54	Ebel	73 (61%)	1	20	99	15	96	9	120	45 (35%)
Oct-19	186	68	0.84	4.67	Ebel	72 (61%)	10	65	44	13	68	38	119	81 (44%)
Apr-19	119	72	0.89	4.7	Ebel	73 (61%)	10	46	63	9	79	31	119	64 (54%)
Jan-19	96	65	0.82	4.68	Ebel	70 (60%)	15	63	39	15	70	32	117	39 (41%)
Oct-18	214	70	0.86	4.84	Ebel	72 (60%)	7	68	45	4	87	29	120	103 (48%)
May-18	119	70	0.83	4.73	Ebel	72 (60%)	15	61	44	9	70	41	120	59 (50%)
May-17	136	69	0.8	4.8	Ebel	75 (63%)	6	63	50	8	89	22	119	45 (33%)
Jan-17	101	64	0.8	NA	Ebel	71 (60%)								
Oct-16	194	71	0.88	4.8	Ebel	72 (60%)	5	49	66	9	88	23	120	72 (37%)
May-16	123	70	0.9	4.9	Ebel	71 (60%)	6	34	79	3	90	26	119	71 (58%)
Jan-16	107	69	0.9	4.9	Ebel	71 (59%)	3	55	62	6	91	23	119	47 (44%)
Oct-15	188	68	0.85	4.9	Ebel	71 (60%)	3	59	58	6	90	24	120	79 (42%)
May-15	114	72	0.89	4.7	Ebel	68 (57%)	3	47	70	5	90	25	120	73 (64%)
Jan-15	89	69	0.86	4.9	Ebel	69 (58%)	9	56	55	9	91	20	120	53 (60%)
Oct-14	232	72	0.9	4.8	Ebel	69 (58%)	5	40	75	3	94	23	120	144 (62%)
May-14	119	67	0.9	4.8	Ebel	69 (58%)	4	43	72	6	82	31	119	54 (45%)

* For Jan 2021 and subsequent diets, the MCQ paper was lengthened from 120 to 180 questions.

2.4 Comparison with previous Part 1 examinations

Table 8: Key statistics in previous years

Examination	Candidates	Number passing	% passed (rounded)	MCQ pass mark %	CRQ pass mark %
Jan-23	169	60	36	62	N/A
Oct-22	340	163	48	65	N/A
Apr-22	253	84	33	64	N/A
Jan-22	160	56	35	63	N/A
Apr-21	227	95	42	63	N/A
Jan-21	149	51	34	66	N/A
Oct-20	369	230	62	61	52
Jan-20	116	53	46	61	52
Oct-19	186	89	48	61	51
Apr-19	119	45	38	61	51
Jan-19	96	37	39	60	50
Oct-18	214	122	57	60	55
May-18	119	64	54	60	54
May-17	136	62	46	63	53
Jan-17	101	38	38	60	51
Oct-16	194	70	36	60	59
May-16	123	61	50	60	56
Jan-16	107	36	34	59	54
Oct-15	188	57	30	59	59
May-15	114	62	54	57	54
Jan-15	89	50	56	58	61
Oct-14	232	102	44	58	57
May-14	119	55	46	58	56

* For Jan 2021 and subsequent diets, the CRQ paper was removed (and 50 per cent more items were added to the MCQ).

Table 9: Comparison to previous years (May 2014 to present)

Sitting	Candidates	Number Passing	Pass rate (%)
January	818	321	39
April May	1210	528	44
October	1723	833	48
<i>Total</i>	<i>3751</i>	<i>1682</i>	<i>45</i>

2.5 Breakdown of results

Table 10: Breakdown of results by deanery

Country	Deanery	Failed	Passed	Total
UK	East Midlands	3	1	4
	East of England	2	1	3
	East of Scotland	3	1	4
	Kent, Surrey and Sussex	1	2	3
	London	6	4	10
	Mersey	2	1	3
	North of Scotland	0	1	1
	North Western	4	2	6
	Northern	2	1	3
	Oxford	4	2	6
	South West Peninsulas	1	0	1
	South Yorks & Humberside	0	1	1
	Wales	0	1	1
	Wessex	0	1	1
	West Midlands	3	6	9
	West of Scotland	2	3	5
Yorkshire	4	2	6	
Overseas	Eire	3	1	4
	Europe and Overseas	11	4	15
Other	Not applicable / Unknown	58	25	83
	TOTAL	109	60	169

Table 11: Breakdown of results by number of attempts

Attempt	Failed	Passed	Total	Pass rate
1	53	38	91	41.8%
2	26	15	41	36.6%
3	13	6	19	31.6%
4	8	1	9	11.1%
5	6	0	6	0%
6	3	0	3	0%
Total	109	60	169	

Appendix 1: Overall results for each deanery

Result data by deanery has been available since October 2010. The summary results for each deanery are listed below.

Table 12: Cumulative pass by deanery

Country	Deanery	Total candidates passed	Total candidates sitting	Pass rate %
UK	East Midlands	48	103	47
	East of England	66	146	45
	East of Scotland	17	26	65
	Kent, Surrey and Sussex	54	93	58
	London	170	319	53
	Mersey	49	120	41
	North of Scotland	24	50	48
	North Western	48	91	53
	Northern	49	91	54
	Northern Ireland	35	85	41
	Oxford	29	49	59
	Peninsula (South West)	33	75	44
	Severn	21	38	55
	South East of Scotland	25	39	64
	South Yorks & Humberside	1	1	100
	Wales	54	112	48
	Wessex	56	122	46
	West Midlands	97	205	47
	West of Scotland	64	129	50
	Yorkshire	69	128	54
Overseas	Eire	10	32	31
	Europe and Overseas	48	125	38
Other	Not applicable / Unknown	112	273	41
	Total	1179	2452	48