Examination Report

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

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Contents

1   Summary

The Part 1 Fellowship of the Royal College of Ophthalmologists (FRCOphth) examination took place on the 23rd October 2024. A total of 327 candidates sat and completed the examination without issue, of which 232 (70.9%) fulfilled the criteria required to pass the examination overall.

Two questions were removed from the exam prior to final results calculation, in order to maintain the fairness and quality of the exam. This led to the maximum number of marks for the exam being adjusted to 178 (from 180).

The multiple-choice question (MCQ) exam showed excellent reliability, with an alpha of α=0.92.

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
Oct-24	**27**	**44**	**33**	**15**	**17**	**28**	**14**	**178***
Apr - 24	27	41	35	17	17	26	14	177*
Jan - 24	28	44	35	15	16	30	11	179*
Oct-23	24	48	32	13	17	22	20	176*
Apr - 23	26	48	14	14	13	40	24	179*
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

* = questions removed

Category groupings

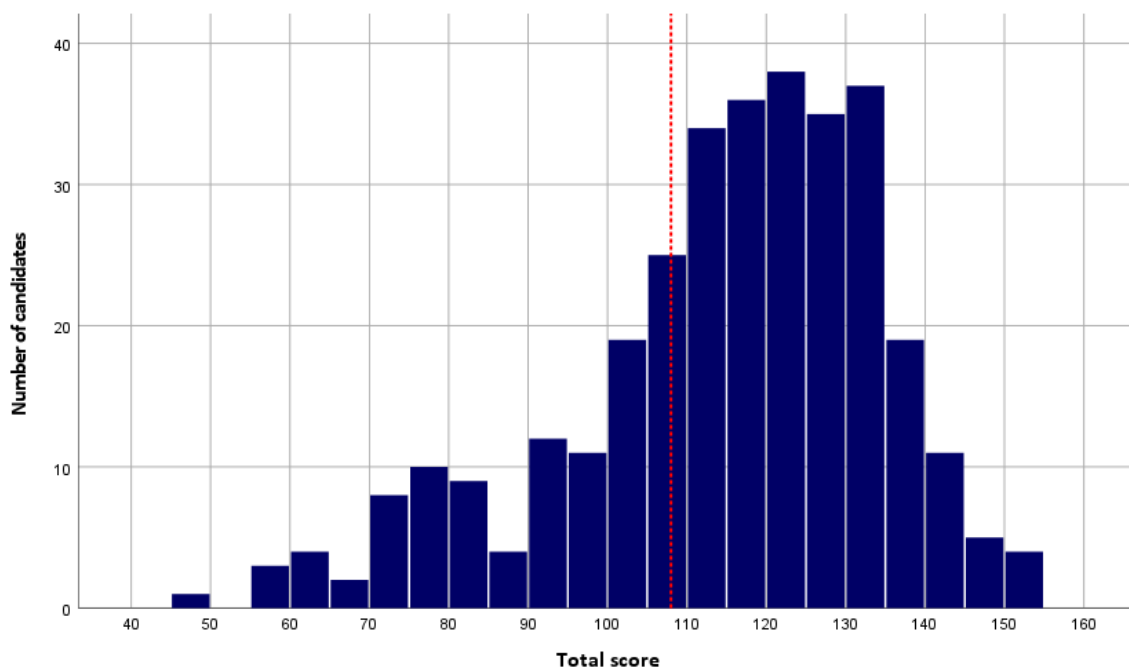| Presented category	Topic of question
Anatomy/ embryology	Anatomy, Embryology
Optics	Optics
Pathology	Immunology, Microbiology, Pathology
Pharmacology & genetics	Pharmacology, Pharmacology and Genetics, Genetics
Physiology	Biochemistry, Cell Biology, Physiology
Investigations	Investigations
Miscellaneous	Statistics, Epidemiology, Unspecified

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	114.14	64.1%
Median score	117.00	65.7%
Standard deviation	20.03	11.3%
Candidates	327	
Reliability: Cronbach's alpha	0.920	
Standard error of measurement (SEM)	5.67	3.2%
Range of marks	49 - 153	27.5% - 86.0%
Pass mark (Standard set; Rounded)	108 / 178	60.7%
Pass rate	232 / 327	70.9%

Histogram showing distribution of total scores – MCQ

The vertical red dotted line denotes the point in 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

			Discrimination (Point Biserial)							
			Negative		Poor		Good		Total	%
			<0		0-0.249		≥0.250			
			Number	%	Number	%	Number	%		
Facility	Difficult	<25%	1	0.6%	4	2.2%	0	0%	5	2.8%
	Moderate	25–75%	6	3.4%	47	26.4%	60	33.7%	113	63.5%
	Easy	>75%	0	0%	12	6.7%	48	27.0%	60	33.7%
		Total	7	4.0%	63	35.3%	108	60.7%	178	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	3	39	68	110
Important	4	27	18	49
Supplementary	3	10	6	19
Total	10	76	92	178

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	1.65	25.35	51.00	78.00
Important	1.80	13.50	9.90	25.20
Supplementary	0.75	2.50	1.50	4.75
Total	4.20	41.35	62.40	108 (rounded)

The MCQ pass mark was 108 / 178 (60.7%).

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

Year	Candidates	Mean score	Reliability (KR 20)	SEM	Standard setting	Pass mark	Discrimination (Biserial)			Facility			Number of questions	Pass number (rate - rounded)
							Negative	Poor (0-0.249)	Good (>0.250)	Difficult (<25%)	Moderate 25-75%	Easy (>75%)		
Oct-24	327	114	0.92	5.67	Ebel	108 (60.7%)	7	63	108	5	113	60	178	232 (71%)
Apr-24	269	104	0.89	5.69	Ebel	113 (63.8%)	6	83	88	16	110	51	177	87 (32%)
Jan-24	178	101	0.89	5.83	Ebel	109 (60.9%)	11	77	91	16	118	45	179	69 (39%)
Oct-23	300	100	0.89	5.87	Ebel	110 (62.5%)	13	66	97	14	121	41	176	99 (33%)
Apr-23	224	107	0.91	5.74	Ebel	114 (63.7%)	14	85	80	14	115	50	179	90 (40%)
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%)

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

　　　Commercial-in-Confidence

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 %
Oct-24	327	232	71	60.7	N/A
Apr-24	269	87	32	63.8	N/A
Jan-24	178	69	39	60.9	N/A
Oct-23	300	99	33	62.5	N/A
Apr-23	224	90	40	64	N/A
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 percent more items were added to the MCQ).

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

Sitting	Candidates	Number Passing	Pass rate (%)
January	996	390	39
April May	1703	705	41
October	2350	1164	50
Total	*5049*	*2259*	*45*

2.5   Breakdown of results

Table 10: Breakdown of results by deanery

Location	Deanery	Fail	Pass	Total
UK	East Midlands	4	4	8
	East of England	2	6	8
	East of Scotland	2	1	3
	Kent, Surrey and Sussex	4	12	16
	London	2	18	20
	Mersey	1	4	5
	North of Scotland	0	2	2
	North Western	3	6	9
	Northern	3	5	8
	Northern Ireland	0	1	1
	Oxford	0	3	3
	Severn	1	2	3
	South East of Scotland	1	0	1
	South Yorkshire & South Humberside	1	2	3
	Wales	2	3	5
	Wessex	2	1	3
	West Midlands	6	7	13
	West of Scotland	0	2	2
	Yorkshire	2	3	5
Overseas	Eire	5	4	9
	Europe and Overseas	4	22	26
Other	Not applicable / Unknown	50	124	174
	TOTAL	95	232	327

Appendix 1: Overall results for each deanery

The summary results of cumulative data for each deanery are listed below.

Table 11: Cumulative pass by deanery

Location	Deanery	Total candidates passed	Total candidates sitting	Pass rate %
UK	East Midlands	61	144	*42.4*
	East of England	86	182	*47.3*
	East of Scotland	24	38	*63.2*
	Kent, Surrey, and Sussex	76	142	*53.5*
	London	223	429	*52.0*
	Mersey	59	140	*42.1*
	North of Scotland	26	55	*47.3*
	North Western	63	123	*51.2*
	Northern	60	115	*52.2*
	Northern Ireland	39	91	*42.9*
	Oxford	40	67	*59.7*
	Peninsula (Southwest)	39	86	*45.3*
	Severn	26	51	*51.0*
	Southeast of Scotland	26	45	*57.8*
	South Yorks & Humberside	7	10	*70.0*
	Wales	63	134	*47.0*
	Wessex	61	140	*43.6*
	West Midlands	115	252	*45.6*
	West of Scotland	68	138	*49.3*
	Yorkshire	82	157	*52.2*
Overseas	Eire	17	65	*26.2*
	Europe and Overseas	100	228	*43.9*
Other	Not applicable / Unknown	395	918	*43.0*
	TOTAL	*1756*	*3750*	*46.8*