OCR
Oxford Cambridge and RSA

FSMQ

Foundations of Advanced Mathematics (MEI)

Unit **6989:** Multiple Choice

Free Standing Mathematics Qualification

OCR Report to Centres January 2015

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

OCR will not enter into any discussion or correspondence in connection with this report.

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OCR REPORT TO CENTRES

Foundations of Advanced Mathematics – 6989

There were just fewer than 600 entries for this series, slightly up on last year. The mean mark was 29.6. The minimum mark scored by two candidates was 9 and seven candidates scored the maximum mark of 40.

In 30 questions at least one candidate offered no answer and in some cases there were quite a number of such omissions – the maximum number was 6 for question 35. These questions were scattered throughout the paper so this did not provide any evidence that candidates found the paper too long.

In all questions each of the distracting responses was selected by at least one candidate.

In 4 questions the correct response was chosen by 50% or fewer of candidates, all in the second half of the paper.

In question 40, 4 more candidates chose the incorrect response (C) than the correct response (B). In both options the bearing was the same but the time was different.

Jill swims at 1.5 m s^{-1} and covers 45 m meaning that she takes 30 seconds. The current does the rest. It is not necessary to find the distance covered and the actual speed; it is possible that most candidates felt they had to do so, a calculation that would give opportunity for the introduction of errors.

As in previous sessions I offer a summary of questions and topics with the approximate percentage of candidates giving the correct responses.

Percentage obtaining the correct response	**Question**	**Topic**
91 – 100	1	Arithmetic – % equivalents
	3	Algebra – substitution of numbers
	4	Arithmetic – fractions
	6	Algebra – solution of equations
	11	Arithmetic – % increase and decrease
	16	Arithmetic – sensible units
	20	Graphs – conversion graph
	25	Algebra – sequences
	30	Arithmetic – powers
81 – 90	7	Statistics – interpretation of bar chart
	12	Algebra – construction of formulae
	14	Statistics– interpretation of tally chart
	15	Arithmetic – standard form
	23	Algebra – equations and identities
	36	Algebra – solution of simultaneous equations
71 – 80	2	Statistics – measures of central tendency
	5	Arithmetic – mensuration
	8	Arithmetic – powers
	10	Arithmetic – ratios
	13	Graphs – properties of straight lines

	17	Graphs – plotting of quadratic
	19	Graphs – interpretation of distance-time graph
	26	Trigonometry – triangle
	32	Algebra – simplification of algebraic expression
61 – 70	22	Trigonometry – prism
	24	Arithmetic – upper and lower bounds
	28	Trigonometry – vectors
	29	Algebra – solution of quadratic equations by formula
	31	Statistics – interpretation of distribution table
	33	Statistics – probability tree
	35	Trigonometry – sine rule
	39	Trigonometry – pyramid
51 – 60	9	Algebra – rearrangement of formulae
	18	Algebra – solution of equations
	27	Trigonometry – graphs of trigonometrical ratios
	37	Graphs – interpretation of graph of cubic function
41 – 50	21	Arithmetic – equivalence of units
	34	Arithmetic – scale drawings
	38	Statistics – cumulative frequency graph
31 – 40	40	Trigonometry – vectors

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