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RECOGNISING ACHIEVEMENT

FSMQ

Foundations of Advanced Mathematics (MEI)

INTERMEDIATE FSMQ **6989**

Report on the Unit

June 2009

6989/MS/R09

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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 syllabus 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.

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Foundations of Advanced Mathematics – 6989

There were 1511 entries for this session, an encouraging increase from last year. The mean mark was 22.7. The minimum mark scored by 2 candidates was 6 and the maximum mark was 39, scored by 6 candidates.

In 7 questions the wrong response was selected by more candidates than the right response, and in 9 others fewer than 50% chose the correct response.

Q5 Equal numbers chose B and D as their response.

Q7 The correct response of C was 3rd most popular choice, behind B and D.

Q8 The correct response of A was 3rd most popular choice, behind C and D.

Q9 More than 50% chose C as their response, the correct one being D.

Q22 More than 60% chose B as their response, the correct one being C.

Q35 Marginally more chose B as their response, the correct one being D.

Q39 More chose C as their response rather then the correct one of A.

More than 0.5% of the candidature chose not to offer a response to questions 5, 12, 20, 27, 29, 31, 32 and 35. Otherwise there was a scattering of non-responses, but in no particular pattern and certainly not giving any indication that he paper was too long or too hard.

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

	Question	Topic
91 – 100%	14	Arithmetic - percentages
81 – 90%	1	Arithmetic
	2	Arithmetic
	10	Algebra – solution of linear equations
	11	Arithmetic - fractions
	13	Arithmetic - ratios
	24	Probability – rolling a die
	25	Arithmetic – exchange rates
71 - 80%	3	Arithmetic – rounding of numbers
	4	Arithmetic – standard form
	15	Arithmetic - approximations
	17	Algebra - substitution
	18	Algebra – interpretation of formula
	21	Algebra – solution of simultaneous equations
	36	Algebra – expansion of brackets
61 - 70%	6	Arithmetic – choice of units
	34	Algebra - sequences
51 - 60%	16	Algebra – manipulation of terms
	23	Coordinate geometry – gradients of lines
	26	Algebra – factorisation of quadratic expressions
	30	Vectors
	31	Trigonometry – angles greater than 90°
	33	Algebra – construction of simultaneous equations
41 - 50%	20	Algebra – rearrangement of formulae
	37	Graphs – interpretation of speed/time graph
31 - 40%	5	Mensuration
	9	Statistics – interpretation of bar chart
	12	Trigonometry – right-angled triangle
	19	Statistics – cumulative frequency
	27	Coordinate geometry – interpretation of cubic graph
	29	Trigonometry – right angled triangles
	32	Trigonometry – cosine formula
	35	Trigonometry – Pythagoras in 3-D
	38	Algebra – solution of quadratic equation by formula
	39	Algebra – simplification of addition of algebraic fractions
	40	Statistics – measures of central tendency and range
21 - 30%	7	Statistics – interpretation of frequency diagram
	8	Arithmetic - estimation
	22	Arithmetic – area
	28	Algebra – linear inequalities

Report on the unit taken in June 2009

Answers.

1	B	21	B
2	C	22	C
3	D	23	B
4	C	24	D
5	D	25	D
6	B	26	D
7	C	27	D
8	A	28	D
9	D	29	C
10	A	30	A
11	A	31	D
12	B	32	A
13	B	33	C
14	A	34	A
15	B	35	D
16	D	36	D
17	B	37	C
18	A	38	A
19	D	39	A
20	D	40	B

Grade Thresholds

Foundations of Advanced Mathematics FSMQ (6989)
June 2009 Assessment Series

Unit Threshold Marks

Unit	Maximum Mark	A	B	C	D	E	U
6989	40	31	27	23	19	16	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
6989	9.7	25.3	48.2	76.4	90.1	100	1511

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