Unit Code: H640/03
Qual Name: A level Mathematics B (MEI)
Qual Title: MEI Pure Mathematics and Comprehension

Question Set	Q. No	Total Marks	AO	Spec Ref.	Topic
1	1	3	1	Mt Trigonometry	Sine and Cosine rules, perimeter of a triangle
1	2	2	1	MC Graphs	Equation of a curve following a translation
1	3	2	1	Mt Trigonometry	Small angle approximations
1	4	10	1	Mc Calculus	Stationary points
1	5	11	1	ME Exponentials and logarithms	Modelling exponetial relationships
1	6	2	1	Ms Sequences and series	Binomial expansions, working with indices
1	7	8	3(PS)	Me Numerical methods	Quadratic equations, intersection of graphs
1	8	8	1	Mg Coordinate geometry	Differentiation using Quotient rule, converting parametric equations to cartesian form
1	9	4	1	Mf Functions	Inverse functions, exponential function
1	10	10	3(PS)	Mv Vectors	Using vectors to solve problems
2	1	2	2	Ma Algebra	Algebraic language
2	2	3	2	Mp Proof	Deductive reasoning
2	3	3	2	Ms Sequences and series	Working with consecutive terms of a geometric sequence
2	4	4	2	Mp Proof	Working with properties of circles and trigonometry
2	5	3	2	Mp Proof	Proof by contradiction
3	1	2	1	Ms Sequences and series	Sigma notation
3	2	4	2	Mf Functions	Inequalities, the modulus function
3	3	3	3(PS)	Ms Sequences and series	Modelling, convergent series
3	4	3	1	Mv Vectors	Finding a vector between two points
3	5	11	2	Me Numerical methods	Fixed point iteration, working with cosec x
3	6	12	3(M)	ME Exponentials and logarithms	Modelling with the exponential function
3	7	9	3(PS)	Mc Calculus	Use of partial fractions in integration
3	8	16	2	Mc Calculus	Quotient rule and Chain rule, trig. substitution
4	1	3	2	Mp Proof	Use of counter example
4	2	2	2	Mc Calculus	Definite integral, natural logarithms
4	3	2	2	Mc Calculus	Increasing functions
4	4	8	2	Mc Calculus	Quotient rule, stationary points, natural logarithms
5	1	6	1	Mf Functions	Inverse functions and their graphs
5	2	5	1	Mf Functions	Completing the square, translating a parabola

Question Set	Q.	Total Marks	AO	Spec Ref.	Topic
5	3	6	1	Mc Calculus	Partial fractions, Use in integration
5	4	3	3(PS)	Ma Algebra	Manipulation of surds
5	5	3	2	Mp Proof	Proof by contradiction
5	6	7	1	Mg Coordinate geometry	Equation of a circle, intersection of a circle and a straight line
5	7	4	2	ME Exponentials and logarithms	Laws of logarithms
5	8	10	3(PS)	Mc Calculus	Use of differentiation to find the equation of a tangent
5	9	6	1	Mc Calculus	Equation of a normal to a curve
5	10	4	2	Mc Calculus	Exponential function, Quotient rule
5	11	6	1	Mc Calculus	Integration by substitution
6	1	2	2	Mg Coordinate geometry	Equation of a straight line
6	2	6	3(M)	Mf Functions	Modelling, use of rational functions
6	3	4	2	Mc Calculus	Integration as the limit of a sum, definite integrals
6	4	3	3(M)	Mf Functions	Use of functions