Unit Code J560/02
Qual Nam GCSE Mathematics - Paper 2 (Foundation tier)
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Question Set	Q. No	Total Marks	AO	Spec Ref.	Topic	Additional Notes/Comments
1	1	2	1	2.02 Decimal fractions	Multiplication and division of decimals	
1	2	4	1	2.01 Fractions	Complete statements for equivalent fractions. Subtract Fractions.	
1	3	4	1	3.01 Powers and roots	Evaluate square, cube, square roots, cube roots	
1	4	6	2, 3	11.01 Basic probability and experiments	Identify events on a probability scale, Interpret 'evens' and probability as a number of items out of a total number of items in context	
1	5	6	1	6.01 Algebraic expressions	Simplify fully an algebraic expression by collecting like terms. Change the subject of a formula. Make x the subject in a formula involving x^2	
1	6	6	2, 3	5.01 Calculations with ratio.	Solve ratio and proportion problem in context - recipe. This also tests 1.01 Calculations with integers	
1	7	6	2	9.04 Similarity	Enlarge a shape on a grid, from a given centre and describe fully a single transformation	
1	8	4	3	10.01Units and measure	Use and convert simple units in context - rate of growth	Common question
1	9	6	3	2.03 Percentages	Increase and decrease a quantity by a simple percentage in context	Common question

Question Set	Q.	Total Marks	AO	Spec Ref.	Topic	Additional Notes/Comments
1	10	6	3	6.03 Algebraic equations and 8.03 Angles	Two intersecting straight lines with opposite angles given as expressions involving x	
2	1	6	1	1.01 Calculations with integers, 2.04 Ordering fractions, decimals and percentages	Adding money in pounds and pence and adding and multiplying negative whole numbers. Use <, > or = to make a statement involving decimals and fractions true.	
2	2	2	1	4.01 Approximation and estimation	Round values to one significant figure to estimate the cost of a weight of apples	
2	3	5	1	6.05 Language of functions	Find output and input of a given function machine from numbers and x	
2	4	2	2	8.03 Angles	Angles between parallel lines - alternate and corresponding	
2	5	10	2, 3	7.04 interpreting graphs	Recognise and interpret a distance-time graph. Complete a distance-time graph and work out an average speed	
2	6	6	2, 3	12.03 Analysing data	Plot a scatter diagram of age and heights, recognise correlation and use a line of best fit to interpret.	
2	7	4	3	10.01 Units and measurement	Use and convert standard units of measurement for length to compare two heights	
2	8	6	1	2.03 Percentages	Calculate a percentage profit and express a percentage change as a decimal to find an original value	Common question
2	9	4	2	11.02 Combined events and probability diagrams	Complete a tree diagram, Use the tree diagram to calculate the probability of a combined event	Common question
2	10	5	3	2.01 Fractions 1.04 Inverse operations	Calculate a fraction of a quantity and use inverse operations with fractions.	

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3	1	3	1	1.01 Calculations with integers	Non calculator methods to calculate a sum and a product of positive whole numbers	
3	2	3	1	2.01 Fractions	Complete statements for equivalent fractions. 3.01 Index notation is also tested	
3	3	2	1	2.02 Decimal fractions	Write a decimal as a fraction and vice versa	
3	4	7	1	12.03 Analysing data	Find median and range and use the mean to find an individual data value	
3	5	3	1	5.02 Direct and Inverse proportion	Solve a word problem involving quantities in inverse proprtion, speed - time context	
3	6	7	2	7.01 Graphs of equations and functions	Recognise and sketch the graphs of linear and quadratic functions and identify intercepts	
3	7	6	3	4.01 Approximation and estimation	Estimate to one significant figure, values in context and use the four rules	
3	8	6	3	8.02 Ruler and compass constructions	Apply constructions to identify the loci of points in a real-world problem using a scale drawing (10.01)	
3	9	3	1	6.03 Algebraic equations	Solve a quadratic equation by factorising	Common question
3	10	5	3	2.03 Percentages	Also tested - 2.01 Fractions. Express percentage change as a decimal or fractional multiplier and apply in context.	Common question
3	11	5	2	8.04 Properties of polygons	Also tested - 8.03 Angles and 5.01 Calculations with ratio. Identify a quadrilateral and use angle properties and properties of triangles within a ratio problem	Common question

Question Set	Q.	Total Marks	AO	Spec Ref.	Topic	Additional Notes/Comments
4	1	2	1	1.01 Calculations with integers	Non calculator methods to calculate a difference and a sum of positive and negative whole numbers in context.	
4	2	4	1	2.01 Fractions	Calculate a fraction of a quantity. 2.02 Decimal fractions also tested - subtraction and division of decimals	
4	3	2	1	2.04 Ordering fractions, decimals and percentages	Order decimals	
4	4	3	1	2.01 Fractions	Add, multiply and divide simple fractions including mixed numbers	
4	5	4	1	2.03 Percentages	Express percentage change as a decimal or fractional multiplier and apply in context.	
4	6	5	2	10.01 Units and measurement	Use the scale of a map and work with bearings. 8.01 Use a ruler and protractor also tested.	
4	7	5	2, 3	2.03 Percentages	Express one quantity as a percentage of another in context.	
4	8	4	3	11.01 Basic probability and experiments	Relative frequency in the context of describing a method to estimate an outcome	
4	9	7	1	5.01 Calculations with ratio	Write ratios in their simplest form starting from integers and mixed units. 10.05 also tested - Write a ratio in the form 1 : n using exact trigonometric values	
4	10	6	3	6.01 Algebraic expressions	Describe errors in questions on simplifying algebra and substitution. 3.01 Powers and 6.02 kinematic formulae also tested	Common question
4	11	5	2	11.02 Combined events and probability diagrams	Complete a Venn diagram and use to calculate a related probability	

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4	12	3	1	7.02 Straight line graphs	Find the equation of a line through one point with a given gradient	
5	1	4	1	1.01 Calculations with integers	Calculate the sum and difference of positive and negative whole numbers. 1.02 Whole number theory also tested - identify prime numbers less than 20	
5	2	4	1	2.02 Decimal fractions	Write a decimal as a fraction (in it's simplest form) and vice versa	
5	3	6	2	8.04 Properties of polygons	Know the basic properties of triangles and quadrilaterals and identify their reflection and rotation symmetries	
5	4	4	2, 3	10.01 Units and measurement	Use and convert units of time, use simple compound units for speed and apply in context	
5	5	4	1	5.01 Calculations with ratio	Write ratios in their simplest form starting from integers and mixed units.	
5	6	5	1	6.01 Algebraic expressions	Simplify algebraic expressions by collecting like terms, multiplying a single term over a bracket and expand products of two binomials	
5	7	3	1	2.03 Percentages	Express percentage change as a decimal multiplier and apply this to an original value problem	
5	8	6	2, 3	6.03 Algebraic equations	Set up and solve a linear equation from the context of a square with unknown sides	
5	9	5	2	11.02 Combined events and probability diagrams	Complete a sample space diagram. Use the addition law for mutually exclusive events and informally understand and apply the formula p(A or B) = p(A) + p(B) - p(A and B)	Common question
5	10	6	3	2.01 Fractions	Add and multiply fractions in context. 4.01 Rounding also tested	Common question

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5	11	3	3	11.02 Combined events and probability diagrams	Identify errors made in a given tree diagram	Common question
6	1	4	1	10.01 Units and measurement	Use and convert standard units of measurement for length and capacity. 1.01 Calculations with integers also tested.	
6	2	4	1	2.01 Fractions	Complete statements for equivalent fractions. 2.02 Decimal fractions also tested - multiplication and division of decimals	
6	3	3	2	12.03 Analysing data	Recognise graphical misrepresentation in a bar chart and comment on summary statistics in context	
6	4	4	1	3.01 Powers and roots	Use positive integer indices and calculate with positive and negative integer powers	
6	5	2	1	6.01c Algebraic expressions	Simplifying algebraic products and quotients. 3.01 Laws of indices also tested	
6	6	4	1	5.03 Discrete growth and decay	Calculate simple interest in financial context	
6	7	5	3	11.02(e) The addition law of probability	Use the addition law in context. 5.01 Calculations with ratio is also tested	
6	8	6	2	7.01 Graphs of equations and functions	Recognise and sketch the graphs of linear and quadratic functions and identify intercepts. Recognise y = 1/x	
6	9	5	3	1.02 Whole number theory	LCM in the context of time	
6	10	5	2, 3	8.01 Conventions, notations and terms	Through the context of working out x- and y- coordinates 9.02 Congruence is also tested	

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6	11	4	1	6.03 Algebraic equations	Solve two linear simultaneous equations	
6	12	4	3	10.03 Area calculations	Use the area of a sector, set up a linear equation (6.03 also tested) to work out the exact value of the radius (3.03 also tested)	