Advance information June 2022

AS Mathematics 7356

Version 1.0

Because of the ongoing impacts of the Coronavirus (COVID-19) pandemic, we are providing advance information on the focus of June 2022 exams to help students revise.

This is the advance information for AS Mathematics 7356.

Information

- This advance information covers all examined components.
- Each bullet point gives the major focus of the content for one question. All questions are covered.
- Where a bullet point lists multiple topics for a question, the most relevant topic is listed first.
- The bullet points are listed in specification order according to the major topic area (ie lettered headings in the specification) of the first topic referred to in each bullet point. Any further sub-ordering required is alphabetical.
- Due to the synoptic nature of some questions, not all relevant topics are listed. Synoptic questions are those that bring together knowledge, skills and understanding from across the specification.
- It is **not** permitted to take this advance information into the examination.

Advice

- Students and teachers should consider how to focus their revision of other non-listed parts of the specification, which may be of supplementary use in questions as well as aiding general understanding.

Focus of the June 2022 exam

7356/1 Paper 1
Section A
- Proof
- Factorising polynomials
- Transformations of graphs, trigonometric functions
- Coordinate geometry and equation of circle
- Binomial expansion, coefficients
- Trigonometric equations, trigonometric identities, quadratics
- Laws of logarithms
- Stationary points of a curve
- Tangents and normals to a curve
- Area under a curve

Section B
- Magnitude and direction of a vector, Newton's laws of motion
- Constant acceleration formulae
- Constant acceleration formulae, motion due to gravity
- Velocity-time graphs
- Forces in 2D
- Newton's laws of motion, calculus in kinematics
- Weight, Newton's laws of motion

7356/2 Paper 2
Section A
- Conditions for real or repeated roots of a quadratic, inequalities
- Factorising cubics
- Manipulating surds
- Sine and cosine rules
- Trigonometric equations, periodicity of trigonometric functions
- Exponential models
- The natural logarithm function
- Second derivative of a function
- Area under a curve, simultaneous equations, interpreting inequalities graphically
- Integrating polynomials

Section B
- Sampling techniques
- Interpreting statistical diagrams, distributions
- Mean and standard deviation
- Discrete probability distributions
- Probabilities from a binomial distribution
- Hypothesis test for proportion, binomial distribution

END OF ADVANCE INFORMATION