Advance Information for Summer 2022

AS Level

Mathematics A

H230

We have produced this advance information to support teachers and students with revision for the Summer 2022 examinations.

Information

- This notice covers all examined components.
- There are no restrictions on who can use this notice.
- You are **not** permitted to take this notice into the exam.
- This document has **2** pages.

Advice

- The information is presented in specification order by the main topic of each question and not in question order.
- Topics not explicitly given in the list may appear in low tariff items or via synoptic questions.
- It is advised that teaching and learning should still cover the entire subject content in the specification.
- Students and teachers can discuss this advance information.

If you have any queries about this notice, please call our Customer Support Centre on **01223 553998** or email general.qualifications@ocr.org.uk.

H230/01 Pure Mathematics with Statistics

Pure Mathematics

- Simultaneous equations; circle geometry
- Quadratic functions; graphical inequalities
- Polynomials; roots of equations
- Binomial expansion
- Solving trigonometric equations; trigonometric identities
- Exponential and logarithmic functions; reduction to linear form
- Differentiation and integration

Statistics

- Interpretation of graphs; measures of central tendency and variation
- Data interpretation from tables
- Discrete probability distributions; probability
- Hypothesis tests; binomial distribution

H230/02 Pure Mathematics with Mechanics

Pure Mathematics

- Disproof by counter example
- Solution of quadratic equations
- Inequalities; quadratic equations
- Proportional relationships; functions; transformations
- Equation of a circle
- Exponential and logarithmic functions; coordinate geometry; area of a triangle
- Differentiation from first principles; equations of tangents and normals; area under a curve
- Vector geometry; trigonometry

Mechanics

- Kinematics; constant acceleration
- Kinematics; variable acceleration; kinematics graphs
- Newton's second law; vectors for 2-dimensional motion
- Pulleys; kinematics; equilibrium, Newton's second law

END OF ADVANCE INFORMATION