Question Paper Brief

Advanced Higher Statistics

C703 77

This edition: September 2016 (version 1.1)

Question Paper Brief — Advanced Higher Statistics

The Course assessment consists of one question paper which will assess:

♦ the knowledge and understanding of a range of complex statistical concepts
♦ the ability to identify and use appropriate statistical models
♦ the ability to apply more advanced operational skills in statistical contexts
♦ the ability to use mathematical reasoning skills to extract and interpret information, think logically and solve problems
♦ the ability to communicate conclusions, exhibiting appreciation of their limitations
♦ the ability to think analytically about the consequences of methodological choices

The question paper will sample the 'Further mandatory information on Course Coverage' in the *Course Assessment Specification*. This sample will draw on all of the skills, knowledge and understanding from each of the following areas:

♦ data handling and interpretation
♦ probability theory
♦ discrete random variables
♦ particular probability distributions
♦ sampling and the central limit theorem
♦ intervals and estimation
♦ bivariate analysis
♦ parametric tests
♦ non-parametric tests
♦ bivariate tests

Command words are the verbs or verbal phrases used in questions and tasks which ask candidates to demonstrate specific skills, knowledge or understanding. For examples of some of the command words used in this assessment, refer to the Specimen Question Paper and the Exemplar Question Paper.

The Course assessment will consist of one question paper:

	Question paper
Time	180 minutes
Marks	100
Skills	The question paper will give candidates an opportunity to apply statistical techniques and skills to data handling and interpretation; probability theory; discrete random variables; particular probability distributions; sampling and the central limit theorem; intervals and estimation; bivariate analysis; parametric tests; non-parametric tests; and bivariate tests as specified in the table provided in the 'Further mandatory information on Course coverage' section at the end of the *Course Assessment Specification*. The question paper requires candidates to demonstrate aspects of breadth, challenge and application in appropriate contexts for statistics. Knowledge and use of a calculator with appropriate statistical capability is expected.
Percentage of marks across the paper	Approximately 25–45% of the overall marks relate to Data Analysis and Modelling. Approximately 25–45% of the overall marks relate to Statistical Inference. Approximately 25–45% of the overall marks relate to Hypothesis Testing.
Type of question	The question paper will consist of a series of short and extended response questions set in contexts that require the application of skills developed in the Course.
Type of question paper	Unstructured: question paper and separate answer booklet. This will allow sufficient space for extended working and open responses.
Proportion of level 'C' questions	Some questions will use a stepped approach to ensure that there are opportunities for candidates to demonstrate their abilities beyond level 'C'. Approximately 65% of marks will be available for level 'C' responses.
Balance of skills	Operational and reasoning skills will be assessed in the question paper. Some questions will assess only operational skills (approximately 65% of marks) but other questions will require both operational and reasoning skills (approximately 35% of marks).