INTRODUCTION

The public assessment of this subject is based on the Curriculum and Assessment Guide (Secondary 4–6) Mathematics jointly prepared by the Curriculum Development Council and the Hong Kong Examinations and Assessment Authority. Candidates have to refer to the Guide for the knowledge, understanding, skills and attitudes they are required to demonstrate in the assessment.

ASSESSMENT OBJECTIVES

The assessment objectives of the Compulsory Part are to test the candidates’:

1. knowledge of the mathematical facts, concepts, skills and principles presented in the Curriculum and Assessment Guide;
2. familiarity with and use of mathematical symbols;
3. ability to use appropriate mathematical techniques for solving a variety of problems; and
4. ability to communicate ideas and to present arguments mathematically.

The assessment objectives of Module 1 (Calculus and Statistics) are to test the candidates’:

1. understanding of the concepts, principles and methods in Calculus and Statistics presented in the Curriculum and Assessment Guide; and
2. ability to apply appropriate techniques in Calculus and Statistics for solving a variety of problems.

The assessment objectives of Module 2 (Algebra and Calculus) are to test the candidates’:

1. understanding of the concepts, principles and methods in Algebra and Calculus presented in the Curriculum and Assessment Guide; and
2. ability to apply appropriate techniques in Algebra and Calculus for solving a variety of problems.

MODE OF ASSESSMENT

The mode of public assessment in the Compulsory Part is shown below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighting</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Public Examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper 1 Conventional questions</td>
<td>55%</td>
<td>2½ hours</td>
</tr>
<tr>
<td>Paper 2 Multiple-choice questions</td>
<td>30%</td>
<td>1¼ hours</td>
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<tr>
<td>School-based Assessment (SBA)</td>
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<td>15%</td>
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The mode of public assessment in Module 1 (Calculus and Statistics) is shown below:

<table>
<thead>
<tr>
<th>Component</th>
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<tr>
<td>Conventional questions</td>
<td>100%</td>
<td>2½ hours</td>
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</tbody>
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The mode of public assessment in Module 2 (Algebra and Calculus) is shown below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighting</th>
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**PUBLIC EXAMINATION**

**Compulsory Part**

The examination will consist of two papers:

**Paper 1 (2 ½ hours) (55%)**

This paper will consist of two sections in which all the questions are to be attempted. Section A will consist of questions on the Foundation Topics of the Compulsory Part together with the Foundation Part of the Secondary 1-3 Mathematics Curriculum. Section B will consist of questions on the Compulsory Part together with the Foundation Part and the Non-Foundation Part of the Secondary 1-3 Mathematics Curriculum. Section A will further be divided into two parts. Section A(1) (35 marks) will consist of 8 to 11 elementary questions. Section A(2) (35 marks) will consist of 4 to 7 harder questions. Section B (35 marks) will consist of 4 to 7 questions.

**Paper 2 (1 ¾ hours) (30%)**

This paper will consist of two sections in which all the questions are to be attempted. Section A (2 ¾ of the paper mark) will consist of questions on the Foundation Topics of the Compulsory Part together with the Foundation Part of the Secondary 1-3 Mathematics Curriculum. Section B (1 ¾ of the paper mark) will consist of questions on the Compulsory Part together with the Foundation Part and the Non-Foundation Part of the Secondary 1-3 Mathematics Curriculum. All questions in the paper will be multiple-choice questions.

Notes:
1. Candidates are not expected to perform lengthy manipulations.
2. In calculations candidates are expected to give answers to appropriate degrees of accuracy.
3. Electronic calculators and mathematical drawing instruments may be used in the examination.
4. SI and metric units will be used in the examination wherever appropriate.
5. Candidates should note the common notations to be used in mathematics examination papers.

**Module 1 (Calculus and Statistics)**

The examination will consist of one paper of 2 ½ hours’ duration. The paper will be divided into two sections in which all the questions are to be attempted. Section A (50 marks) will consist of 8-12 short questions. Section B (50 marks) will consist of 3-5 long questions.

Notes:
1. Knowledge of the subject matter in the Compulsory Part together with the Foundation Part and the Non-Foundation Part of Secondary 1-3 Mathematics Curriculum is assumed.
2. In calculations candidates are expected to give answers to appropriate degrees of accuracy.
3. Electronic calculators and mathematical drawing instruments may be used in the examination.
4. Statistical tables will be printed in the question paper where appropriate.
5. SI and metric units will be used in the examination wherever appropriate.
6. Candidates should note the common notations to be used in mathematics examination papers.
Module 2 (Algebra and Calculus)

The examination will consist of one paper of $\frac{3}{2}$ hours' duration. The paper will be divided into two sections in which all the questions are to be attempted. Section A (50 marks) will consist of 8-12 short questions. Section B (50 marks) will consist of 3-5 long questions.

Notes: 1. Knowledge of the subject matter in the Compulsory Part together with the Foundation Part and the Non-Foundation Part of Secondary 1-3 Mathematics Curriculum is assumed.
2. Electronic calculators and mathematical drawing instruments may be used in the examination.
3. Candidates should note the common notations to be used in mathematics examination papers.

SCHOOL-BASED ASSESSMENT (SBA)

In the Compulsory Part, students will be required to complete two assessment tasks: one in Secondary 5 and the other in Secondary 6. These tasks will be more extended in nature than the questions in traditional tests and examinations, and should provide opportunities for students to demonstrate their competence in the following skills and abilities, which are embodied in the curriculum objectives:

1. applying mathematical knowledge to solve problems;
2. reasoning mathematically;
3. handling data and generating information; and
4. using mathematical language to communicate ideas.

The assessment tasks can be in the form of written assignments or even practical tasks, and will be conducted mainly in school under teacher supervision. A wide variety of types of tasks can be adopted for assessment purposes, including, for instance, mathematical investigations and solving more sophisticated problems in real-life situations or with mathematics itself.

It is proposed that the required assessment tasks are:

1. one task on mathematical investigation or problem-solving; and
2. one task on data handling.

The detailed requirements, regulations, assessment criteria and guidelines will be provided in the SBA Handbook for HKDSE Mathematics published by the Hong Kong Examinations and Assessment Authority.

There is no time-line for the implementation of SBA in Mathematics and a review will be conducted in the school year 2012/13. During the transition years, schools will be expected to conduct the SBA activities as integral parts of learning and teaching and internal assessment as recommended in the Curriculum and Assessment Guide.