JOHN EDMONDSON HIGH SCHOOL
Assessment Notification

Faculty: Mathematics  Course: Mathematics  Year: 12

Assessment Task: 4

Assessment Weighting: 20%  Due: Term 3 Week 3  Date: 7th August 2019

Task Type: Hand in Task  In Class Task  Practical Task

Outcomes assessed (NESA)
H3, H4, H5, H9

PLEASE NOTE: Further information related to these codes can be found on the NESA website

Task Description/Overview
The Mathematics examination will be a written assessment task. The Mathematics examination paper will be based mainly on the Mathematics HSC course and will focus on the course objectives and HSC course outcomes. The Mathematics Preliminary course will be assumed knowledge for this examination.

Detailed Assessment Task Description
Applications of calculus to the physical world
- Motion of a particle
- Rates of change
- Exponential growth and decay

Sequences and Series
- Arithmetic series. Formulae for the nth term and sum of n terms.
- Geometric series. Formulae for the nth term and sum of n terms.
- Sigma notation
- Geometric series with a ratio between −1 and 1. The limit of \(x^n\), as \(n \to \infty\), for \(|x| < 1\), and the concept of limiting sum for a geometric series.

Probability
- Random experiments, equally likely outcomes; probability of a given result.
- Sum and product of results.
- Experiments involving successive outcomes; tree diagrams.

Test/Examination Structure

<table>
<thead>
<tr>
<th>Section Description</th>
<th>Marks Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section I</td>
<td></td>
</tr>
<tr>
<td>• Objective response questions</td>
<td>10</td>
</tr>
<tr>
<td>Section II</td>
<td></td>
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<tr>
<td>• There will be three questions each worth 15 marks.</td>
<td>45</td>
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<tr>
<td>• Each question will consist of a number of short-answer parts.</td>
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<tr>
<td>Total Marks for this task</td>
<td>55</td>
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Satisfactory completion of courses
A course has been satisfactorily completed, when the student has:
- Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA)
- Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.
- Achieved some or all of the course outcomes