Gymea Technology High School
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Year 12, HSC Physics

Task 2: Half Yearly Examination

Date: Week 10 and 11 2024 Examination Block

Task Distributed: Friday 15th March 2024

Unit: Module 5 and 6: Advanced Mechanics and Electromagnetism

Task Type: Examination

Task Weighting: 100% of Report Mark

Outcomes: **PH12-1, PH12-2, PH12-3, PH12-4, PH12-5, PH12-6, PH12-7, PH12-12, PH12-13**

Task Description

Using syllabus outcomes and content as a guide from the Advanced Mechanics (Module 5) and Electromagnetism (Module 6) topics, students will need to formulate logical and coherent responses to a range of questions to achieve full marks.

The examination is 2 hours in duration with 5 minutes reading time. It will consist of:

- **Section 1**: 15 multiple choice.
    - Students should allow 30 minutes to complete this section.
- S**ections 2**: 60 marks of short responses (marks indicated per question).
    - Students should allow 1 hour 30 minutes to complete this section.

All working out must be shown to be awarded full marks.

As this is an examination, you will need to prepare for this task by:

- Make summary notes of each topic listed below
    - Projectile motion
    - Circular motion
    - Motion in gravitational fields
    - Charged particles/conductors in electric and magnetic fields
    - The motor effect
    - Electromagnetic induction
    - Application of the motor effect (investigate the operation of a simple DC motor ONLY)
- Regularly complete practice examination questions.
- Seek teacher assistance on unclear work.
- Ensure all set work is up to date.

NESA Glossary of Key Words

Understand the verb associated with the task. The verb will provide an understanding of the detail needed to successfully answer the question.

- EXPLAIN: Relate cause and effect; make the relationships between things evident; provide why and/or how.
- DISCUSS: Identify issues and provide points for and/or against
- IDENTIFY: Recognise and name.
- OUTLINE: Sketch in general terms; indicate the main features of.
- Check the NESA glossary of key words for further guidance: https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/hsc-student-guide/glossary-keywords

Details of Submission

For successful completion of this examination you must bring the following equipment.

- NESA approved calculator
- Blue or black pen
- Pencils and an eraser for graph drawing
- A ruler

Please bring your own equipment as you will not be able to borrow equipment on your examination day.

Students will need to bring pens, pencils, a ruler and a board approved calculator to this task. All answers are to be completed on the paper.

Any student who is absent on the day must follow the illness/misadventure procedures in the school's assessment policy. Non-completion of the task without successful illness/misadventure appeal will receive a zero-mark and an N-Warning notification, as outlined in the Year 12 Assessment Booklet.

Students are to complete the task on the first day they return to school.

Teacher Feedback and Student Self-Reflection

- The task will typically be returned to students within 14 days of the due date.
- At this time feedback including information on how to improve will be provided through mechanisms such as marking criteria, and/or written comments.
- Students can clarify or seek further feedback by the speaker with their teacher or the assessment marker.

Upon return of the task, students will also be expected to complete a self-reflection.

Students will be required to complete a self-reflection worksheet at the time students receive their assessment mark and teacher feedback. Self-reflection is an important part of the learning process as it provides an opportunity to reflect on the strength of our performance, as well as areas that have been identified to strengthen in future tasks.

How does this link to my learning?

This task will draw together the above outcomes, by providing students with the opportunity to demonstrate their knowledge, understanding and skills in Year 12 Physics. This will allow them to gain feedback on areas of strength, as well as areas in which to improve. Students will utilise their problem-solving skills to solve real-world, science-based problems.

Assessment Procedures

All students should be fully aware of the School Assessment Procedures for their year group. These were provided at the beginning of the school year and are available off the school website under the Learning Tab for each year group.