First Name(s) $\quad$| Student Number |
| :--- |
| as on student card |

Practical Group
Code

PHY131H1F - SUMMER
Term Test -version 1
Thursday, June 2, 2011
Duration: 110 minutes

PLEASE read carefully the following instructions.
Aids allowed: A pocket calculator with no communication ability. A single aid-sheet prepared by the student, no larger than 8.5 "x11", written on both sides.

- Turn off any communication device you may have and place it far from where you are sitting.
- DO NOT separate the sheets of your question paper. You can, however, "carefully" tear off the blank page at the end, as it does not have to be handed in. It is just some extra paper for your rough work.
- Before starting, please PRINT IN BLOCK LETTERS your name, student number, and Practical group code at the top of this page and on the answer sheet. (This is worth one point!)
- Check that the test-version numbers under the shaded circle at the top right of the answer sheet and in the title of your test paper match. If they do not, call an invigilator; if they do, do not write anything on or near the circles.


## Scanned Area of the Answer Sheet:

1. Use a dark-black, soft-lead pencil or a black pen.
2. Mark in your student number by shading the circles in the student number area.
3. Indicate your answer to a multiple-choice question by thoroughly filling the appropriate circle on the answer sheet and also by recording your answer on the test paper.
4. If you wish to modify an answer, erase your pencil mark thoroughly, or use dry tape white-out sparingly.
5. Do not write anything else on the answer sheet. Use the blank sheets at the end or the back of the question sheets for rough work.

The test consists of 11 multiple-choice questions, worth 2 points each, or altogether 22 points. The test also has a set of free-form questions worth 13 points, for which fully worked solutions are required. In addition, one point will be awarded for correctly and completely filling out the identifying information at the top of this page and on the answer sheet. The total possible number of points is 36 .

## Multiple-choice questions:

- Please choose the best answer.
- Blank or incorrect answers are worth zero points.
- Multiple answers for the same question result in zero points for that question.

Free-form Questions: To be awarded maximum credit, you must provide fully worked solutions to all parts of the free-form questions. In addition to showing your work, please put your answer(s) for each part in the boxes provided. You can use the back-side of the sheets and the blank pages at the end for your rough work which will not be graded or taken into account.

When the invigilators declare the test ended, stop any writing or filling of circles on the answer sheet immediately. Please put your answer sheet inside your test paper and have the paper ready for an invigilator to pick up.

