



**The 11th Asian Physics Olympiad
Taipei, Taiwan
Theoretical Competition
Sunday, 25 April 2010**

Please read this first:

1. The time available is 5 hours for the theoretical competition. There are three questions with a total of 30 marks.
2. Use only the pen provided for writing.
3. There are three color-labeled envelopes placed inside a big envelope on your desk. Each color-labeled envelope contains **Question** papers, **Answer** sheets, and **Writing** sheets for one theoretical question.
4. Use only the front side of each *writing sheet*. Write only inside the boxed area.
5. The *writing sheets* for different questions are labeled in different colors.
6. For each question, in addition to the *blank writing sheets*, there are *answer sheets* where you must summarize the results you have obtained. Do not write in any boxed space marked with a solidus (oblique stroke, /). Numerical results should be written with as many digits as are appropriate.
7. Write on the blank *writing sheets* whatever you consider is required for the solution of the question. Please use as little text as possible; express yourself primarily in equations, numbers, figures, and graphs.
8. Fill the boxes at the top of each sheet of paper with your student code, the consecutive number of each sheet (Page Number), and the Total Number of *writing sheets* used for each question. If you use some blank *writing sheets* for notes that you do not wish to be marked, put a large X across the entire sheet and do not include it in your numbering.
9. A student who receives question papers and answer sheets in English and his (or her) native language can summarize his (or her) answer in either set of answer sheets but must return both sets together according to item no. 10 of this instruction.
10. At the end of the exam, arrange all sheets for each question *in the following order*:
 - *Answer Sheet(s)*
 - used *Writing Sheets* in order of increasing page-number
 - writing sheets you do not wish to be marked (with a large X put across the entire sheet)
 - unused writing sheets
 - the printed question sheets

Place all sheets of paper of each question inside their respective color-labeled envelopes and then place all three color-labeled envelopes inside the big envelope. Leave everything on your desk. You are not allowed to take *any* sheets of paper out of the room.