

Exam Report

Module Code/Title: Quantum Physics of Matter (PHYS2024)

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Feedback comments:

The overall average (including coursework) was 59%.

Section A: The average was around 60%, which is pleasing for a compulsory section. The answers can be found in chapters 4,5,9,10,11.

Question B1: About 40 attempts at this question, and the average score was low at about 40%, mainly because the latter parts of the question were not attempted. The answers can be found in chapter 5 of the notes.

Question B2: About 80 attempts with an average score of around 60%. Many could do parts a) and b) almost perfectly, which were based on the problem sheets and on chapter 6. Part c) was only successfully completed by a few, with most not realising $U = \langle E \rangle = \sum E_i P_i$, and the answer can be found in section 6.8.

Question B3: About 90 attempts, with an average score of around 60%. This was based on the problem sheets and most could carry out the necessary algebra to score quite well on the question. While manipulating the logarithms, some answers missed out intermediate steps and were penalised for this.

Question B4: About 30 attempts with an average score of around 60%. The answers can be found in chapter 7. Several attempts did not know the third law of thermodynamics, and basic errors in taking the limits of exponentials were made.