Historically, overall the module it has been typical for the exam to average somewhat lower than many and be compensated for by the laboratory marks. This year is a clear exception where both module components have returned good marks, in the majority of cases. I hope this reflects the particular students enthusiasm, including good attendance, over this year (and future groups take note).

I will not cover every question section in detail, just picking out particular, repeated or unusual problems.

Question 1 was generally well answered. It tests breadth of knowledge rather than depth or problem solving and the background was clearly strong. When problems were posed, such as part e, a minority of candidates made some rather elementary mathematical mistakes which a 'sanity check' ought to reveal.

Question 2 was popular and universally well answered.

Question 3 was the most popular choice. This question incorporated a mixture of topics from the lectures, including Verilog representations, CMOS logic design and transistor characteristics. On the whole, candidates missed at least one of these aspects and this resulted in a wide spread of marks. In particular, even those (few) candidates who recognised the 'keeper' circuit failed to appreciate the -dynamic- behaviour of the latch when switching. Although this was not explored explicitly in lectures it is all deducible from topics which were covered.

Question 4 was very unpopular and not well answered. Even in retrospect I can't see why this would be so; there is a significant amount of 'bookwork' involved and the problem parts are fairly straightforward.

Question 5 was reasonably popular and generally well answered. One recurring issue was part d - which was a simple(?) lab. related problem and a 'giveaway' for most candidates - which several answers appeared which were wrong in the same ways, failing both functionally and, in all probability (including on the lab. tools) not being synthesisable; this was slightly worrying. On the whole though most candidates scored well on most parts.